COMPAQ

T1000/T1010 Series Windows®-based Terminal
Administrators Guide

Software Version 3.5

T1000/T1010 Series Windows®-based Terminal Administrators Guide

Software Version 3.5

February 2001

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- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

⊠ **Caution**

Changes or modifications not covered in this manual must be approved in writing by the manufacturer's Regulatory Engineering department. Changes or modifications made without written approval may void the user's authority to operate the equipment.

Terminal Requirements Compliance

FCC Compliance

Models T1000 and T1010 terminals meet Class B requirements.

IEC/EN Compliance

Models T1000 and T1010 terminals meet Class B requirements.

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This product conforms to the requirements of IEC950 and EN60950.

This product conforms to requirements of EN55022 for Class A equipment or EN55022 for Class B equipment (refer to "Terminal Requirements Compliance").

T10x0 Series Windows-based Terminals

For use with External Power Supply DVE Model DSA-0301-05 or Potrans Model UP01811050A or certified equivalent model supplied by the manufacturer, rated minimum 5V/4A.

Noise Suppressor

A noise suppressor (ferrite bead) must be installed on the network cable of your terminal. This installation is necessary to maintain compliance with U.S. FCC B limits and European CISPR B EN55022 Class B limits. The noise suppressor is supplied by the manufacturer and is packed in your terminal's shipping carton.

Cable Notice

The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may cause interference and violate FCC and international regulations for electromagnetic interference.

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About the Administrators Guide

The *T1000/T1010 Series Windows-based Terminal Administrators Guide* contains the information you will need to install, configure, connect, and troubleshoot a WBT (Windows-based Terminal). This guide is written for network system administrators and covers the Models T1000 and T1010 terminals.

Guide Overview

The administrators guide consists of the following chapters:

- Terminal Installation
- Advanced User Interface
- Connection Configuration
- External Devices
- Firmware Upgrades
- Client Security
- Getting Help

This guide contains information about:

- Terminal specifications and installations
- The WBT user interface
- Physical and network connections, and protocols supported
- Firmware upgrades
- Terminal security
- Getting help

Guide Conventions

Text Format

Table 1 lists the text format conventions used in this document.

Table 1   Text Format Conventions

Convention	Where Used
Italic	New term, book title, or emphasis.
Bold	Screen display, keycaps, and user input.
✔ **Note**	This convention indicates a note. A note adds information.
⊠ **Caution**	This convention indicates a caution. A caution indicates actions that may cause damage to equipment, erase files, or destroy data.
+	Keystroke sequences such as: **Ctrl+Alt+Del**
|	Instructions about invoking a menu such as: **Network** | **SNMP Network** | **Location**

User Interface Menu Control

Table 2 describes the command buttons used for user interface menu control on a T1000/T1010 WBT.

Table 2   User Interface Menu Control

Command Button	Function
X	Found in the upper right corner of a dialog box. Click on this command button to quit a dialog box or properties sheet without saving changes.
OK	Found in dialog boxes and on properties sheets. Click on this command button to save your changes and quit a dialog box or properties sheet.
Cancel	Found in dialog boxes and on properties sheets. Click on this command button at any time to quit a dialog box or properties sheet without saving changes.
Apply	Found in dialog boxes and on properties sheets. Click on this command button to save changes without quitting a dialog box or properties sheet.
Next or **Accept**	Found in wizards. Click on these command buttons to display the next dialog box in the sequence.
Back	Found in wizards. Click on this command button to return to the previous dialog box.
Finish	Found in wizards. Click on this command button to finish the wizard.

Terminal Installation

1   **Model T1000 Terminal Installation**
2   **Model T1010 Terminal Installation**

1 Model T1000 Terminal Installation

This section discusses the procedures for installing the T1000 terminal.

> ☑ **Note**
> A keyboard and AC power cord are supplied with U.S. models only.

Locating the Terminal

Position the terminal on a clean, horizontal surface that is free from vibration and out of direct sunlight. Refer to "Windows-based Terminal Specifications" for environmental specifications.

Connecting the Terminal

Make all connections to the back panel before connecting the terminal to power. Figure 1-1 shows a terminal's back panel connectors.

Figure 1-1   T1000 Terminal Back Panel Connectors
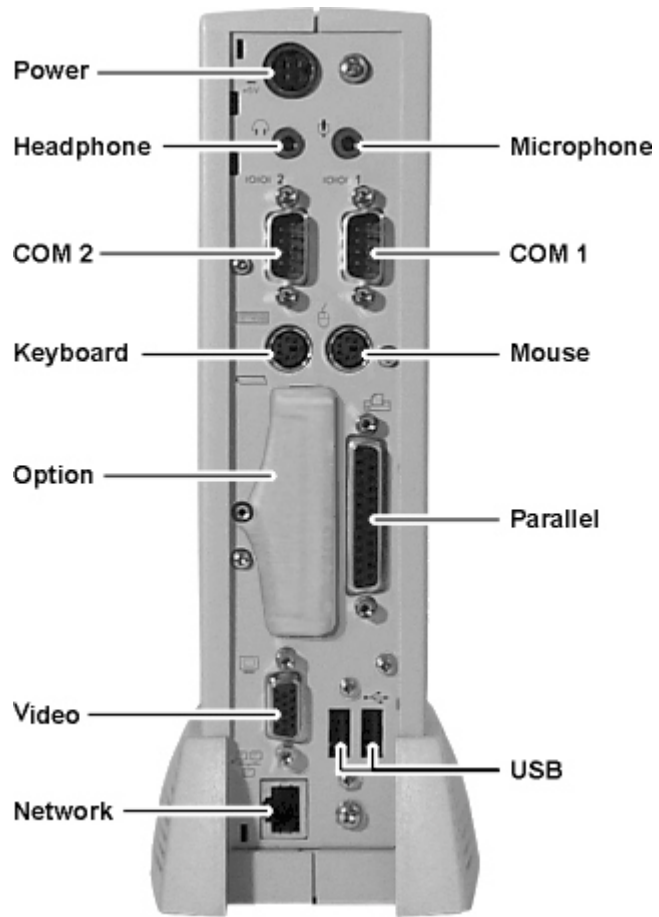
The following table summarizes the back panel connectors' functions.

Table 1-1   T1000 Terminal Back Panel Connectors

Connector	Description
Network Connector	LAN connector, 10/100Base-T
Com1	Serial port 1. Can be connected to: • External modem. • Local server. • Local serial printer. • Touch-screen monitor.
Com2	Serial port 2. Can be connected to: • External modem. • Local server. • Local serial printer. • Touch-screen monitor.
Parallel Port	Local printer output
Video	Monitor interface
Keyboard	Keyboard interface
Mouse	PS-2 mouse interface
USB	Keyboard and mouse.
Power	Power module cable interface
Option Slot	PCMCIA card slot
Headphone	Audio output for headphones or powered speakers
Microphone	Audio input for microphones (currently not supported)

Proceed as follows to connect the terminal. (If necessary, remove the desktop mounting stand (one Phillips-head screw on the bottom.)

✔️ **Note**

> Before connecting the cables, decide which mounting configuration will be used and ensure that the cables are of the correct lengths. If permanent desktop configuration is to be used, drill the desktop mounting holes before connecting the cables.

1. Connect the monitor to the Video connector.

2. Connect the keyboard to the Keyboard connector.

3. Connect the mouse to the Mouse connector.

4. If you will be using a network connection, connect a 10Base-T or 100Base-T network cable to the Network connector. Be sure to install the supplied noise suppressor on the cable.

5. Depending on your configuration needs, connect a printer to the parallel port, and/or connect a modem/server serial cable to the serial ports, as appropriate.

6. Connect the power supply output cable to the Power connector.

⊠ **Caution**

> Do not force a connector into its socket. If any undue resistance is encountered, ensure that the connector is oriented correctly to the socket.

7. Plug the AC cord into the power supply, then into an AC outlet.

8. After the cables are connected, install the terminal in its planned location (see the next section "Mounting the Terminal").

Mounting the Terminal

Instructions for mounting your terminal are provided in the following paragraphs.

Freestanding Desktop Mounting

The terminal is shipped with a desktop mounting stand attached so it can immediately be put into desktop operation. The mounting stand is weighted and equipped with non-skid feet. A single screw attaches the mounting stand to the terminal housing. The following figure shows the terminal mounted on the desktop mounting stand.

Figure 1-2   T1000 Freestanding Desktop Mounting

Turning On the Terminal

Once the terminal is installed and all back panel connections have been made, power it up. It is powered-up and operating when the power supply is connected to AC power; to toggle the display off or on, press and release the power button.

> ✔ **Note**
>
> If the button is continuously depressed for 3-5 seconds, the unit will perform a hard boot.

See the following figure for the location of the power button.

Figure 1-3   T1000 Power Button
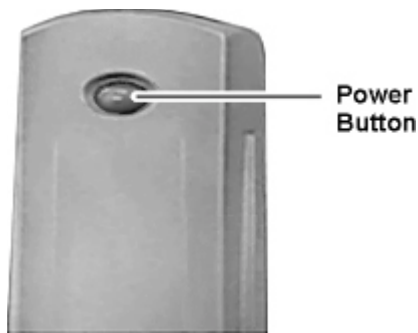
The splash screen will appear, followed by:

- The **Setup Wizard**, if it is the first time that you have turned on your terminal.
- The **Connection Manager** dialog box, if the **Setup Wizard** has been completed.

Adjustments to the display can be made at any time, whether or not the terminal is connected to a server. See "Changing Terminal Properties" for more information.

2 Model T1010 Terminal Installation

This section discusses the procedures for installing the T1010 terminal. The following sections describe how to connect and set up the terminals.

> ☑ **Note**
> A keyboard and AC power cord are supplied with U.S. models only.

Locating the Terminal

Position the terminal on a clean, horizontal surface that is free from vibration and out of direct sunlight. Refer to "Windows-based Terminal Specifications" for environmental specifications.

Connecting the Terminal

Make all connections to the back panel before connecting the terminal to power. Figure 2-1 shows a terminal's back panel connectors.

Figure 2-1   T1010 Terminal Back Panel Connectors
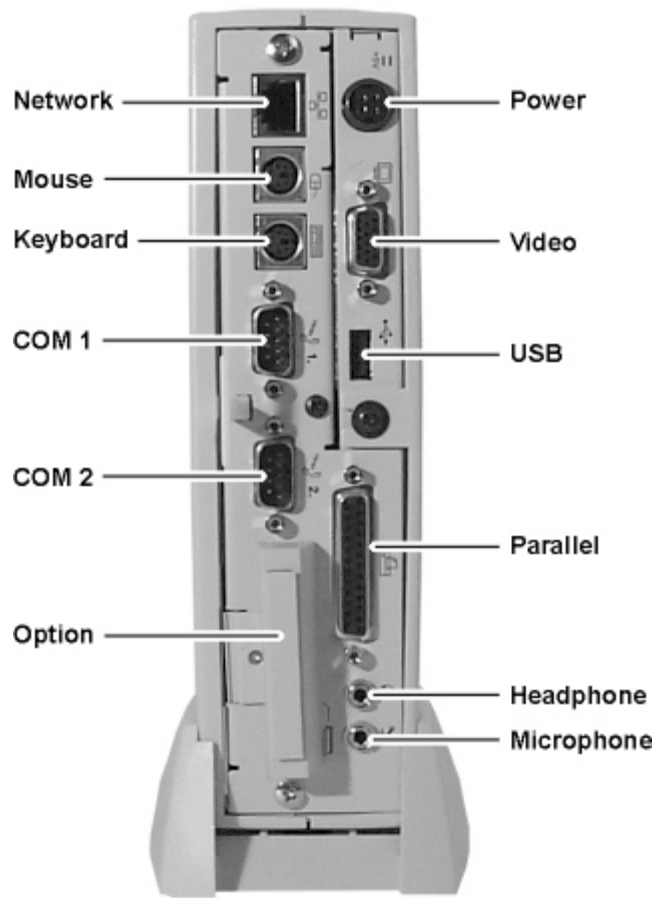
The following table summarizes the back panel connectors' functions.

Table 2-1   T1010 Terminal Back Panel Connectors

Connector	Description
Network Connector	LAN connector, 10/100Base-T
Com1	Serial port 1. Can be connected to:
	• External modem.
	• Local server.
	• Local serial printer.
	• Touch-screen monitor.
Com2	Serial port 2. Can be connected to:
	• External modem.
	• Local server.
	• Local serial printer.
	• Touch-screen monitor.
Parallel Port	Local printer output
Video	Monitor interface
Keyboard	Keyboard interface
Mouse	PS-2 mouse interface
USB	USB interface
Power	Power module cable interface
Option Slot	PCMCIA card slot
Headphone	Audio output for headphones or powered speakers
Microphone	Audio input for microphones (currently not supported)

Proceed as follows to connect the terminal. (If necessary, remove the desktop mounting stand (one Phillips-head screw on the bottom.)

✓ Note

Before connecting the cables ensure that the cables are of the correct lengths. If permanent desktop is to be used, drill the desktop mounting holes before connecting the cables.

1. Connect the monitor to the Video connector.

2. Connect the keyboard to the Keyboard connector.

3. Connect the mouse to the Mouse connector.

4. If you will be using a network connection, connect a 10Base-T or 100Base-T network cable to the Network connector. Be sure to install the supplied noise suppressor on the cable.

5. Depending on your configuration needs, connect a printer to the parallel port, and/or connect a modem/server serial cable to the serial ports, as appropriate.

6. Connect the power supply output cable to the Power connector.

☒ Caution

Do not force a connector into its socket. If any undue resistance is encountered, ensure that the connector is oriented correctly to the socket.

7. Plug the AC cord into the power supply, then into an AC outlet.

8. After the cables are connected, install the terminal in its planned location (see the next section "Mounting the Terminal").

Mounting the Terminal

Instructions for mounting your terminal are provided in the following paragraphs.

Freestanding Desktop Mounting

The terminal is shipped with a desktop mounting stand attached so it can immediately be put into desktop operation. The mounting stand is weighted and equipped with non-skid feet. A single screw attaches the mounting stand to the terminal housing. The following figure shows the terminal mounted on the desktop mounting stand.

Figure 2-2   T1010 Freestanding Desktop Mounting
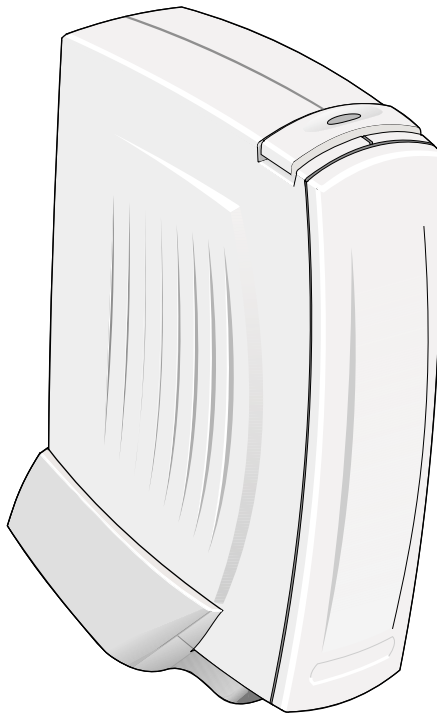
Turning On the Terminal

Once the terminal is installed and all back panel connections have been made, power it up. It is powered-up and operating when the power supply is connected to AC power; to toggle the display off or on, press and release the power button.

> ✅ **Note**
>
> If the button is continuously depressed for 3-5 seconds, the unit will perform a hard boot.

See the following figure for the location of the power button.

Figure 2-3   T1010 Power Button
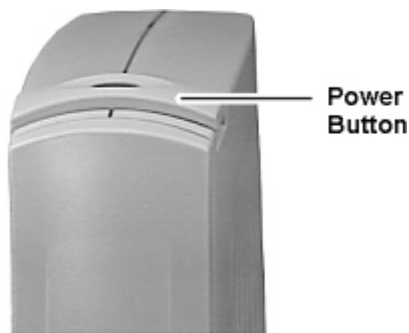
The splash screen will appear, followed by:

- The **Setup Wizard**, if it is the first time that you have turned on your terminal.
- The **Connection Manager** dialog box, if the **Setup Wizard** has been completed.

Adjustments to the display can be made at any time, whether or not the terminal is connected to a server. See "Changing Terminal Properties" for more information.

Advanced User Interface

3 Initial Terminal Setup

The **Setup Wizard** is used for initial setup of the terminal's properties. The wizard runs when:

- You power-up your terminal for the first time.
- An image has been downloaded to your terminal that is *older* than the image currently in use.
- You use the **Reset the Terminal to Factory-Default Property Settings** function on the **General** properties sheet, or you reset the terminal using a hot-key procedure under direction of the factory.

Using the Setup Wizard

The **Setup Wizard** lets you set terminal network configuration and terminal display parameters. Several dialog boxes display in succession during the process. Each dialog box is self-explanatory. Some dialog boxes are informational and require no user input. Other dialog boxes prompt you for network, printer, and display information. See Figure 3-1 to view the **Welcome/Countdown** dialog box, which is the first dialog box of the wizard.

> ☑ **Note**
>
> Any future changes to settings that were made using the wizard can be made using the **Terminal Properties** dialog box. Launch this dialog box from the **Connection Manager** by pressing the **F2** key. See "Changing Terminal Properties."

Figure 3-1   Welcome/Countdown Dialog Box
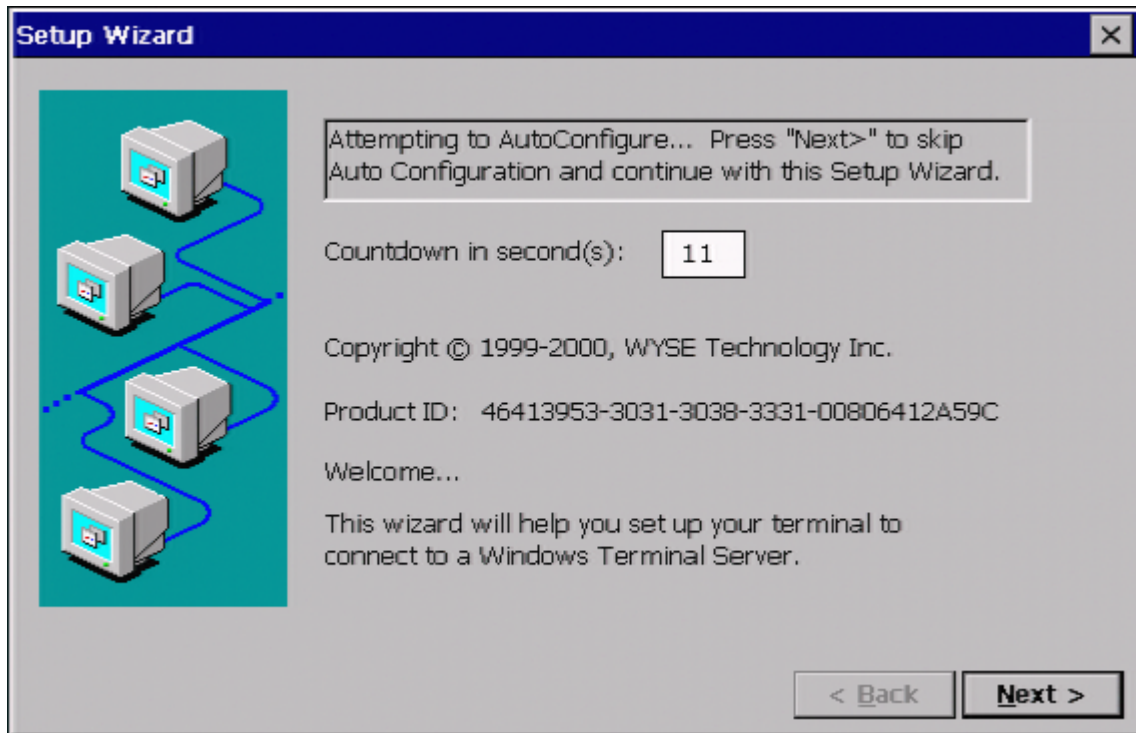
The **Welcome/Countdown** dialog box provides product information and a countdown.

- Click on **Next** during the countdown before it reaches zero to continue with the wizard.
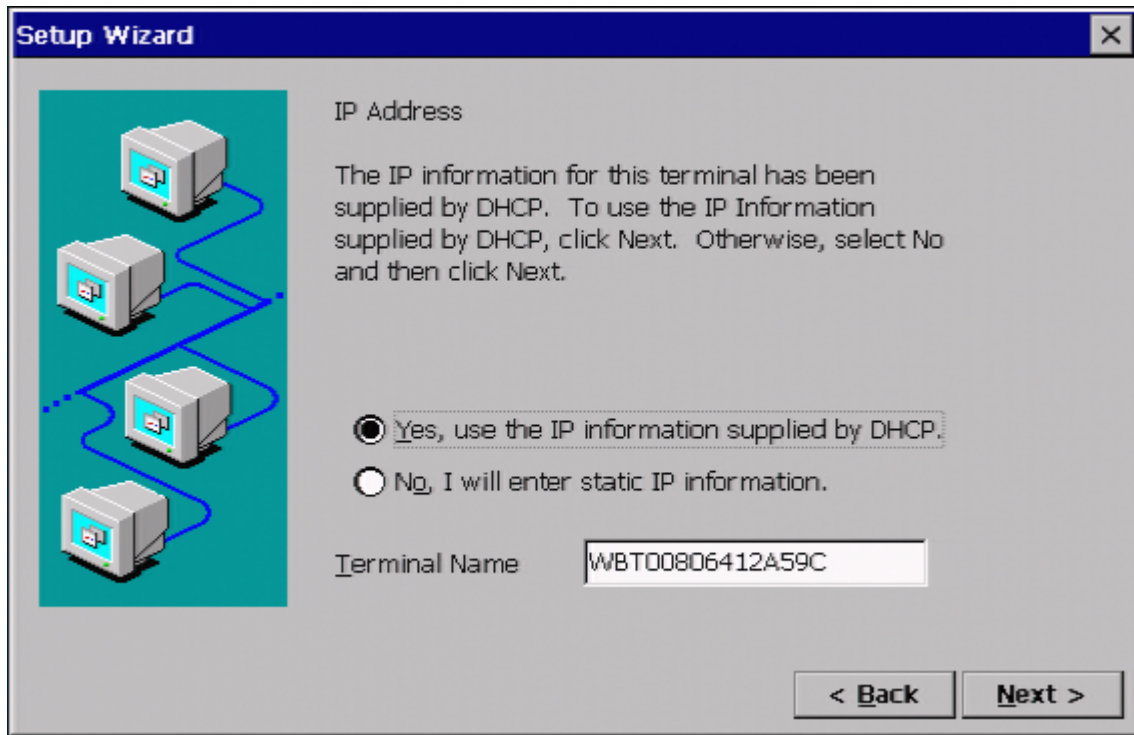
    Or

- Let the count go to zero to auto-configure the terminal.
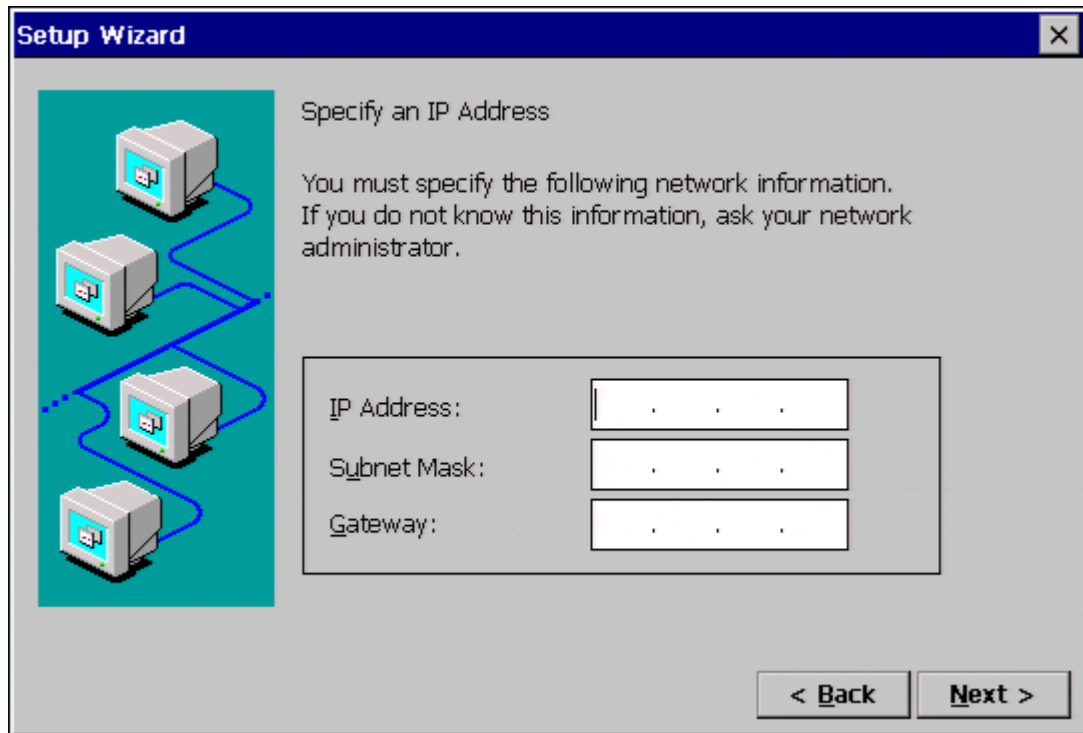
Figure 3-2   IP Address Dialog Box

> ☑ **Note**
>
> Contact the network administrator if a message
> appears in the box indicating that no network services
> were found. It may be that the network is not connected
> to the terminal or the network services are not
> configured. The default active radio button in this box
> will be **No** if network services were not found; otherwise
> the default will be **Yes**.

Click on one of the two radio buttons to select a method for supplying IP addresses:

- If you select **No, I will enter static IP information** and click on **Next**, the **Specify an IP Address** (Figure 3-3) will display, followed by the **Optional Information** dialog box.
- If you select **Yes, use the IP information supplied by DHCP** and click on **Next**, the **Desktop Area and Refresh Frequency** (Figure 3-5) dialog box will display, skipping the **Specify an IP Address** dialog box.

Figure 3-3   Specify an IP Address Dialog Box

Enter the addressing information requested in the fields provided (by default the fields are blank). Click on **Next** to go to the **Optional Information** dialog box (Figure 3-4).

Figure 3-4   Optional Information Dialog Box

Check a box to enable name resolution:

* **Enable DNS** - Enables Domain Name Services
* **Enable WINS** - Enables Windows Internet Naming Services

Enter the information in the text fields that are active. By default the check boxes are unselected and the text fields are inactive. Click on **Next** to go to the next step.

Figure 3-5 Desktop and Keyboard Settings Dialog Box
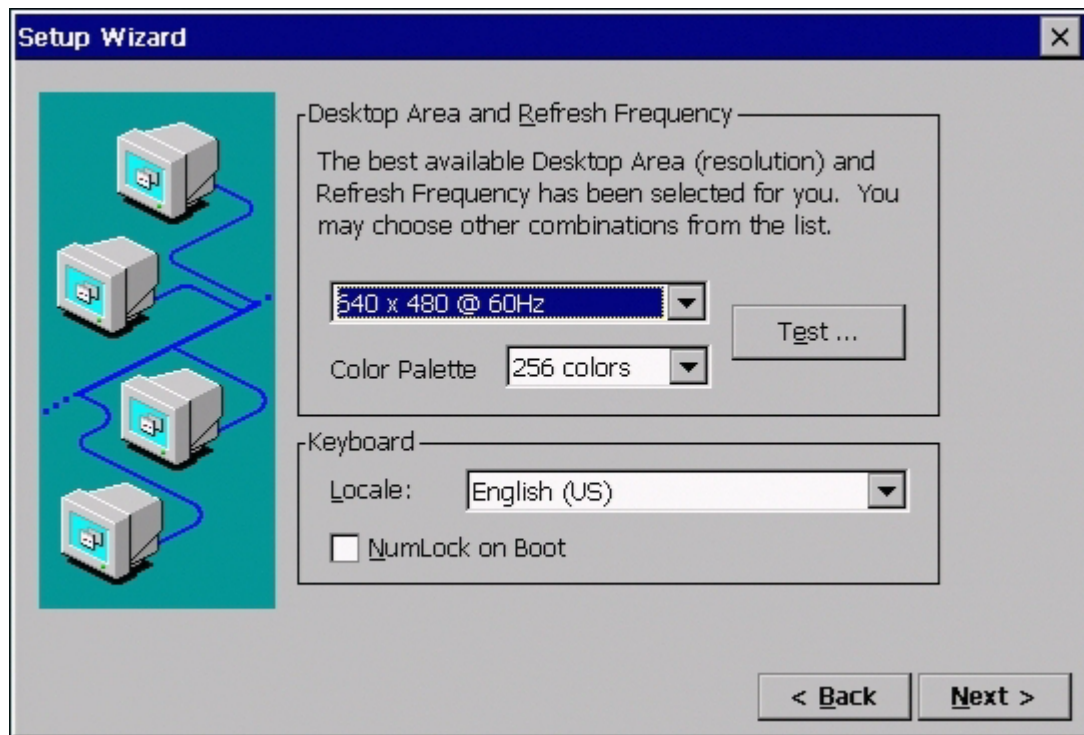
The following table lists the functions of the **Desktop and Keyboard Settings** dialog box**.**

Table 3-1   Desktop and Keyboard Settings Dialog Box

Function	Description
Desktop Area and Refresh Frequency area:	
Resolution drop-down list box	Select a resolution from the list. Selections are: • **Best Available Using DDC** Supported in all terminals. • **640 x 480 @ 60Hz** Supported in all terminals. • **640 x 480 @ 75Hz** Supported in all terminals. • **640 x 480 @ 85Hz** Supported in all terminals. • **800 x 600 @ 60Hz** Supported in all terminals. • **800 x 600 @ 75Hz** Supported in all terminals. • **800 x 600 @ 85Hz** Supported in all terminals. • **1024 x 768 @ 60Hz** Supported in all terminals. • **1024 x 768 @ 75Hz** Supported in all terminals. • **1024 x 768 @ 85 Hz** Supported in all terminals. • **1280 x 1024 @ 60 Hz** Supported in the T1010 only.
Color Palette drop-down list box	Select the color resolution for applications used with the terminal (8-bit, 256 colors or 16-bit, 65,536 colors). Typically, 256 would be selected for ICA and 65536 would be selected if the local browser is used (although use of the lower resolution may help the terminal run faster).
Test... command button	Click on this command button to test the selections you made in the drop-down list boxes in this area. The following dialog box displays:

Table 3-1   Desktop and Keyboard Settings Dialog Box, Continued

Function	Description

	Clicking **Ok** displays a color test pattern. After the test pattern closes, respond to the prompt(s) to accept or reject the new settings.
Keyboard area	Select the keyboard nationality in the **Locale** drop-down list box. Check the **NumLock on Boot** check box if you want the numeric keypad to be active when the terminal boots. The following keyboard mappings are supported by the firmware:

Belgian Dutch	French	
Belgian French	German	Slovak
Brazilian (ABNT)	Greek	Slovenian
Canadian Eng (Multi)	Hungarian	Spanish
Canadian FR (Multi)	Italian	Spanish Variation
Canadian French	Italian (142)	Swedish
Croatian	Japanese	Swiss French
Czech	Latin American	Swiss German
Danish	Norwegian	Turkish F
Dutch	Polish (214)	Turkish Q
English (UK)	Polish (Programmers)	US International
English (US)	Portuguese	
Finnish	Romanian	

After making a new selection or accepting the default, click on **Next** ro go to the **Browser Setup** dialog box.

Figure 3-6   Browser Setup Dialog Box
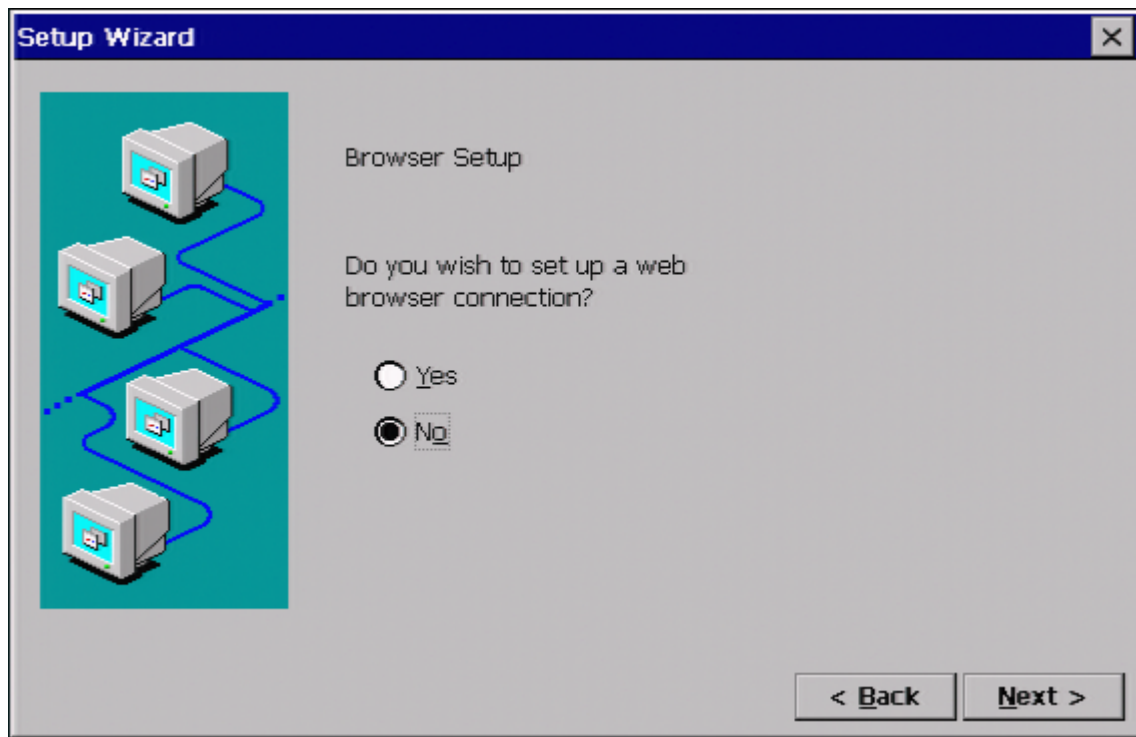
Select whether or not to set up a local browser, and click **Next** to the next step. If you selected Yes, the **Browser URLs** dialog box (Figure 3-7) displays. If you selected No, the browser setup is skipped and the **Local Printer Setup** dialog box (Figure 3-11) is displayed.

Figure 3-7   Browser URLs Dialog Box
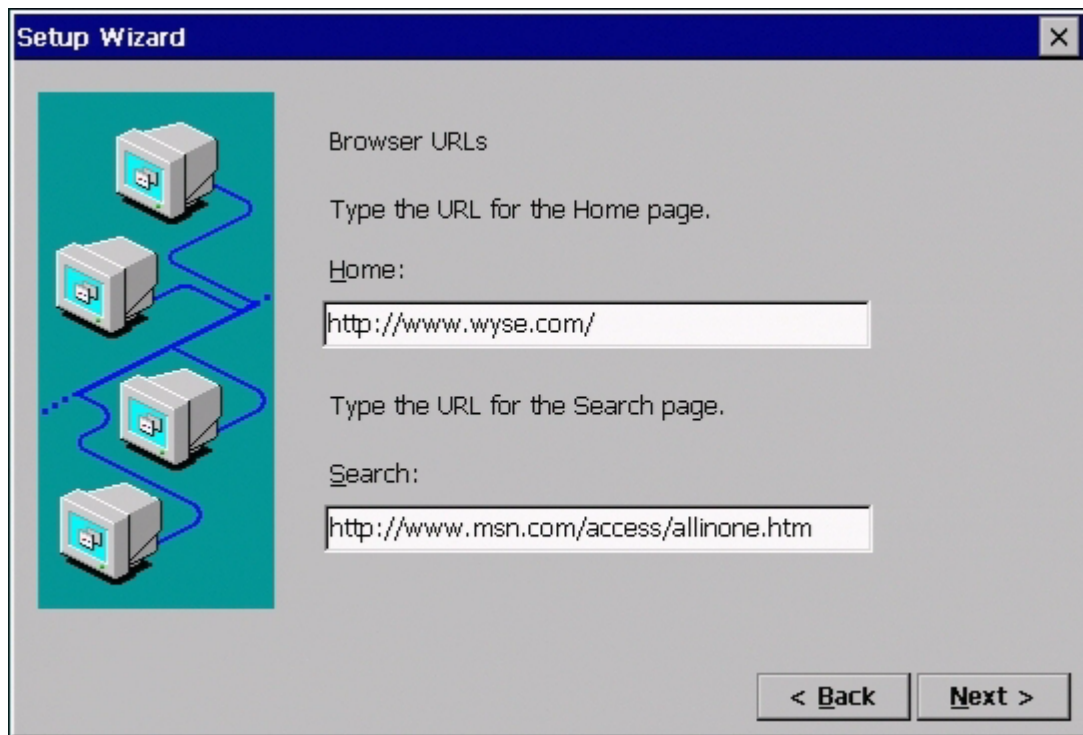
Type the URLs for the **Home** and **Search** pages, or accept the defaults, and click **Next** to continue.

Figure 3-8   Preferences Dialog Box
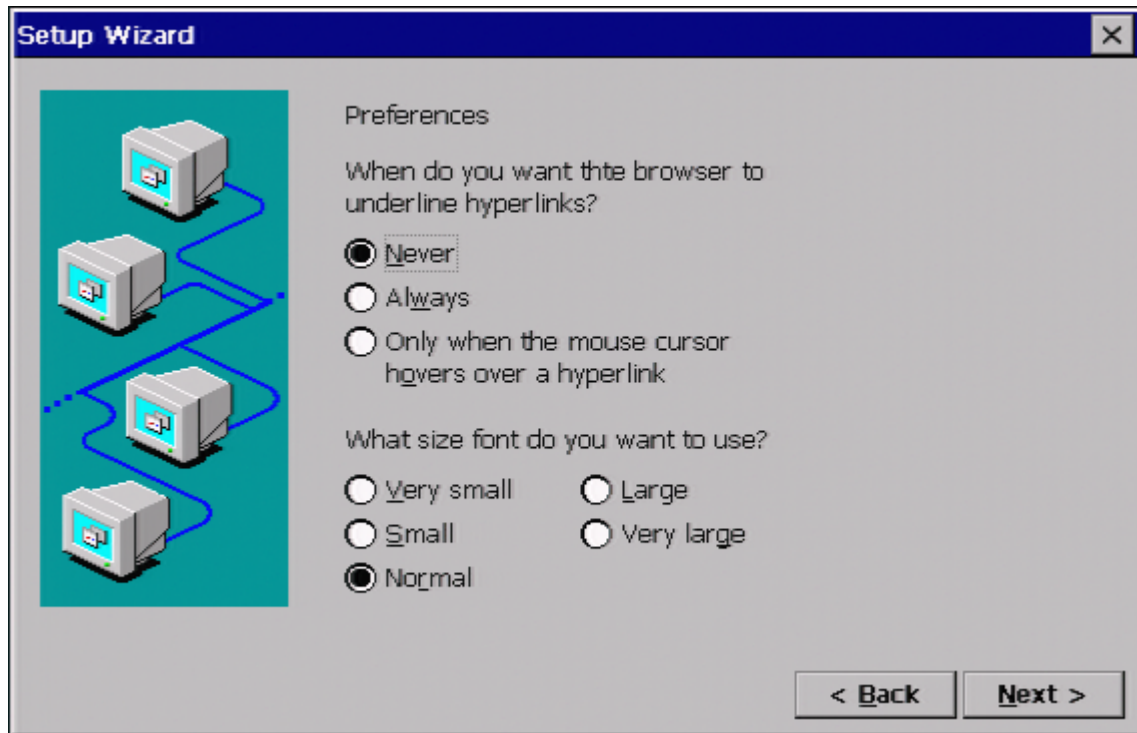
Select the desired preferences or accept the defaults, and click **Next** to continue.

Figure 3-9   History and Favorites Dialog Box
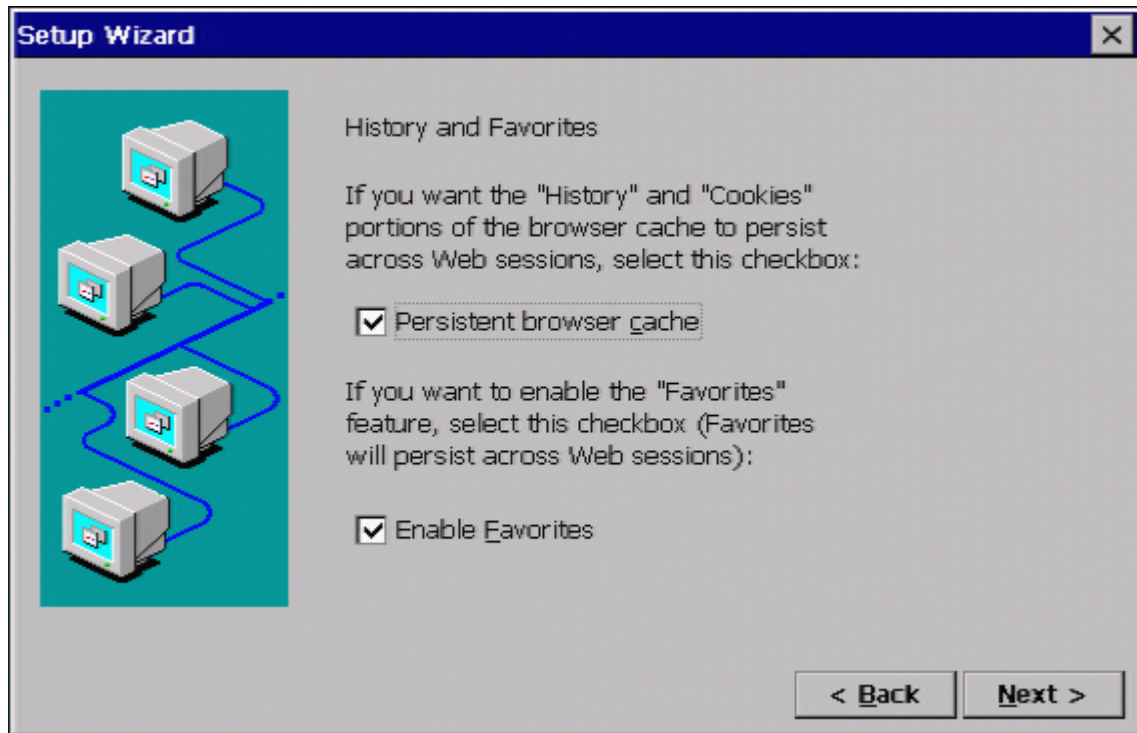
Uncheck the boxes or accept the defaults (checked) for the indicated selections, and click **Next** to continue.

Figure 3-10   Proxy Server Dialog Box
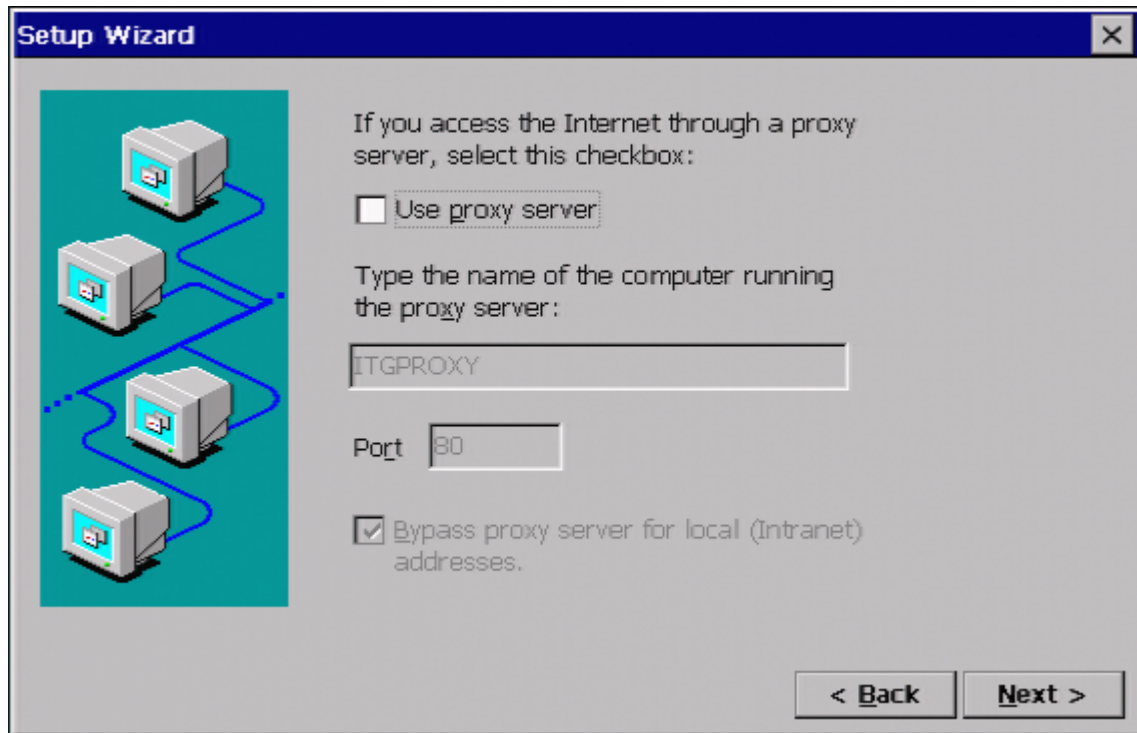
If your terminal accesses the Internet through a proxy server, check the **Use proxy server** box and make the required entries in the now-enabled text and check boxes, and click **Next** to continue to the **Local Printer Setup** dialog box (Figure 3-11).

Figure 3-11   Local Printer Setup Dialog Box
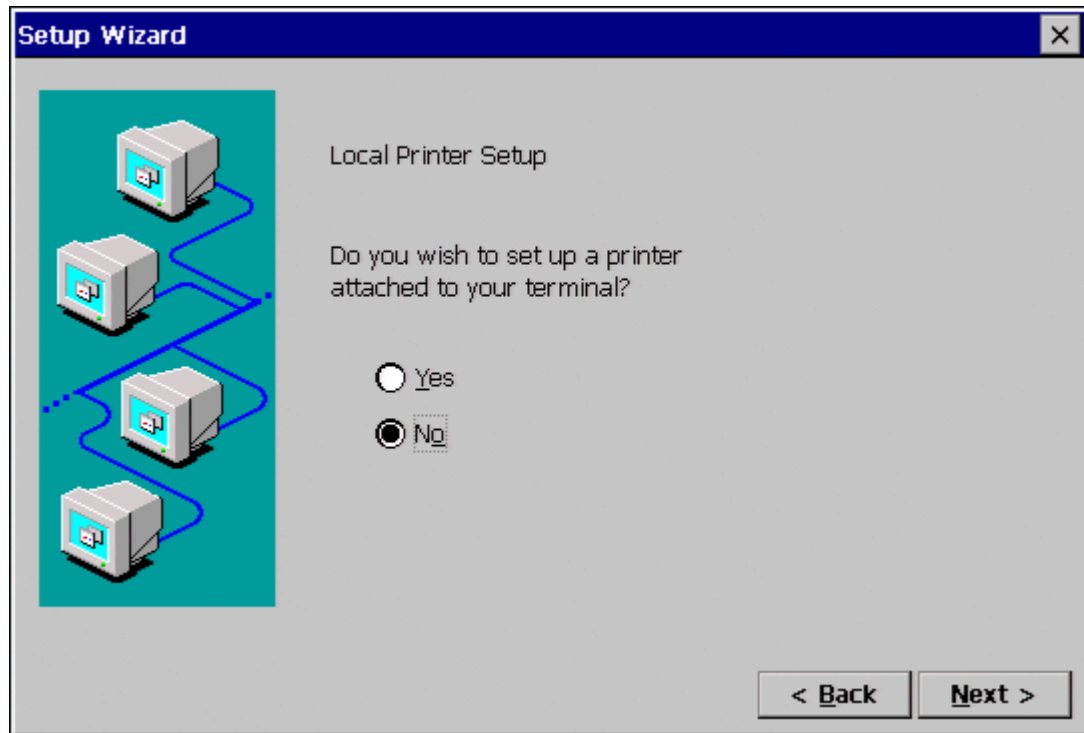
The **Local Printer Setup** dialog box displays.

If you want to set up a printer connected locally to your terminal, select **Yes** and the dialog boxes that follow will prompt you for printer information.

> ☑ **Note**
>
> This local printer setup applies only to RDP connections. See "Local Printers" for further information.

If you select **No** (the default), you will skip the remaining printer dialog boxes and the **Finish** dialog box (Figure 3-17) will display.

Make your selection and click on **Next**.

Figure 3-12   Select Printer Port Dialog Box
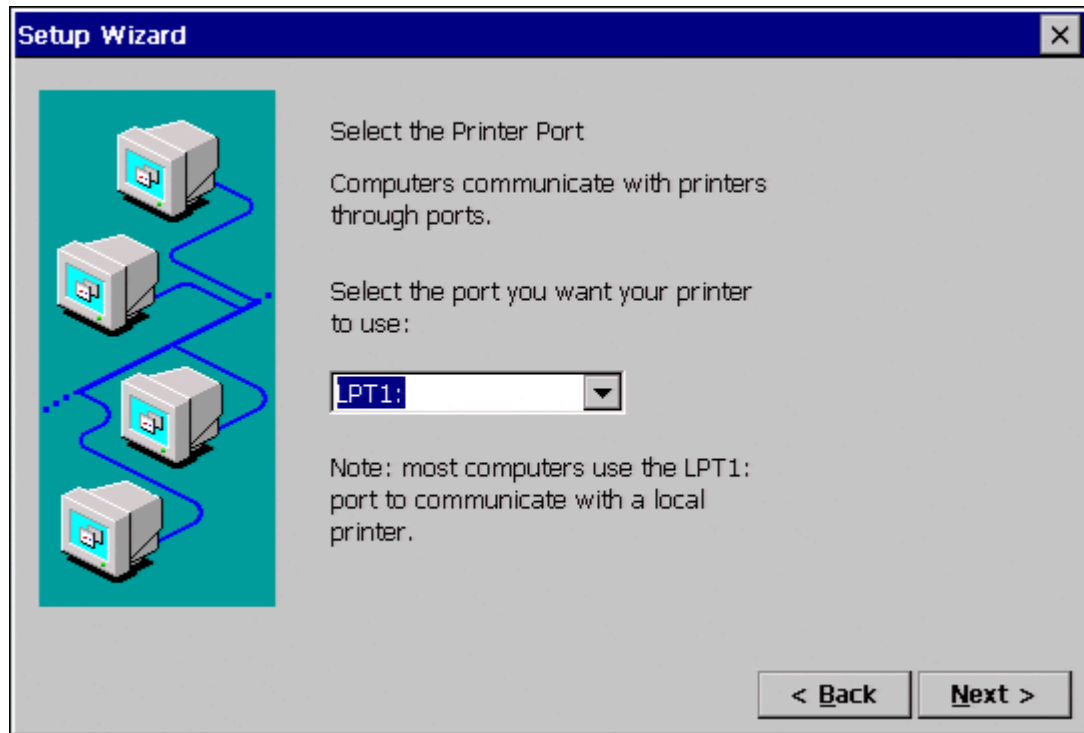
In the **Select Printer Port** dialog box, select the port to which the printer is connected and click on **Next** to go to the next step.

Figure 3-13   Select Printer Model Dialog Box
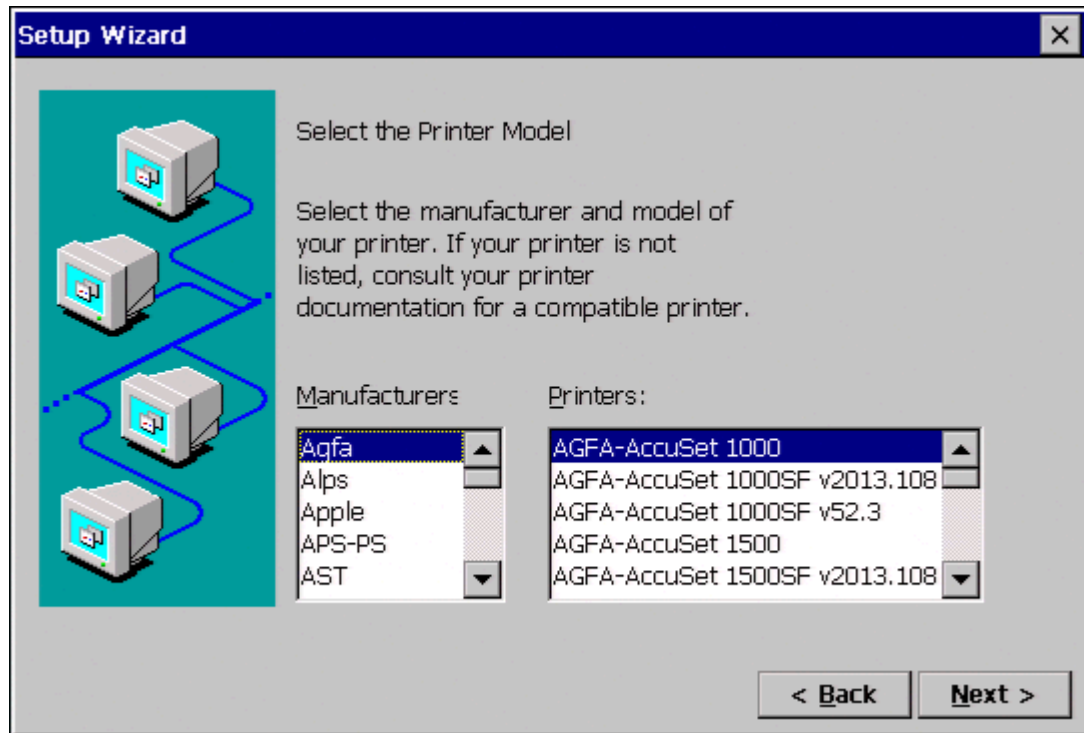
In the **Select the Printer Model** dialog box, select the printer model from the list and click on **Next** to go to the next step.

Figure 3-14   Printer Name Dialog Box
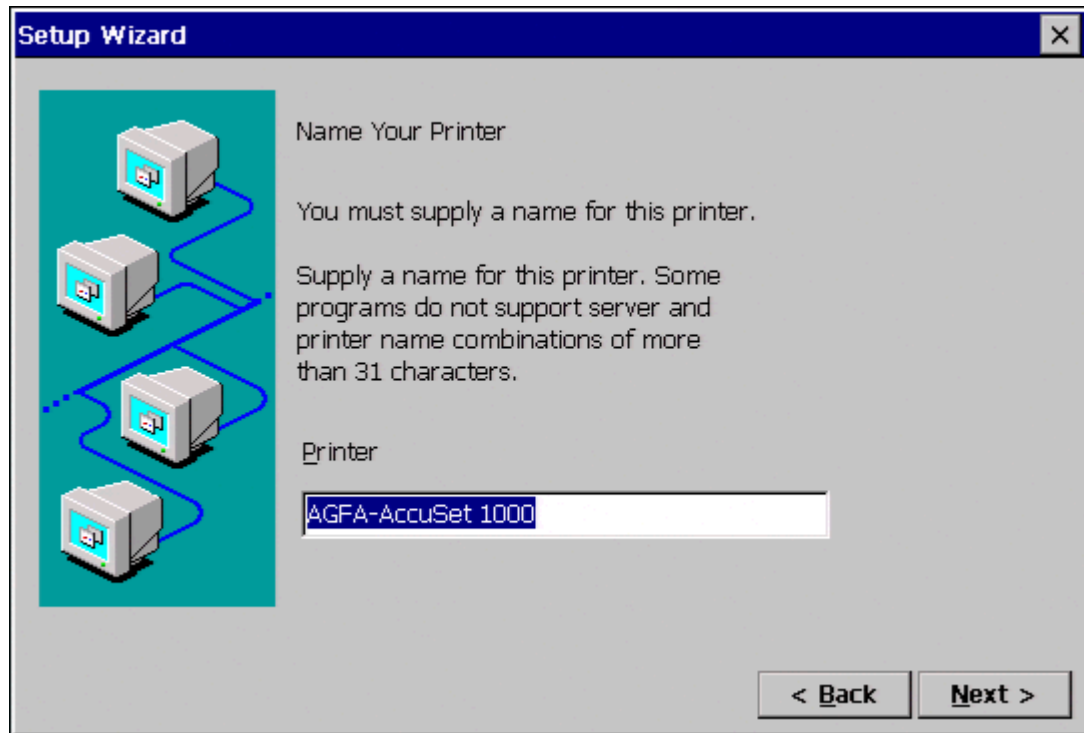
In the **Name Your Printer** dialog box, enter a name by which to refer to your printer and click on **Next** to go to the next step.

Figure 3-15   Default Printer Dialog Box
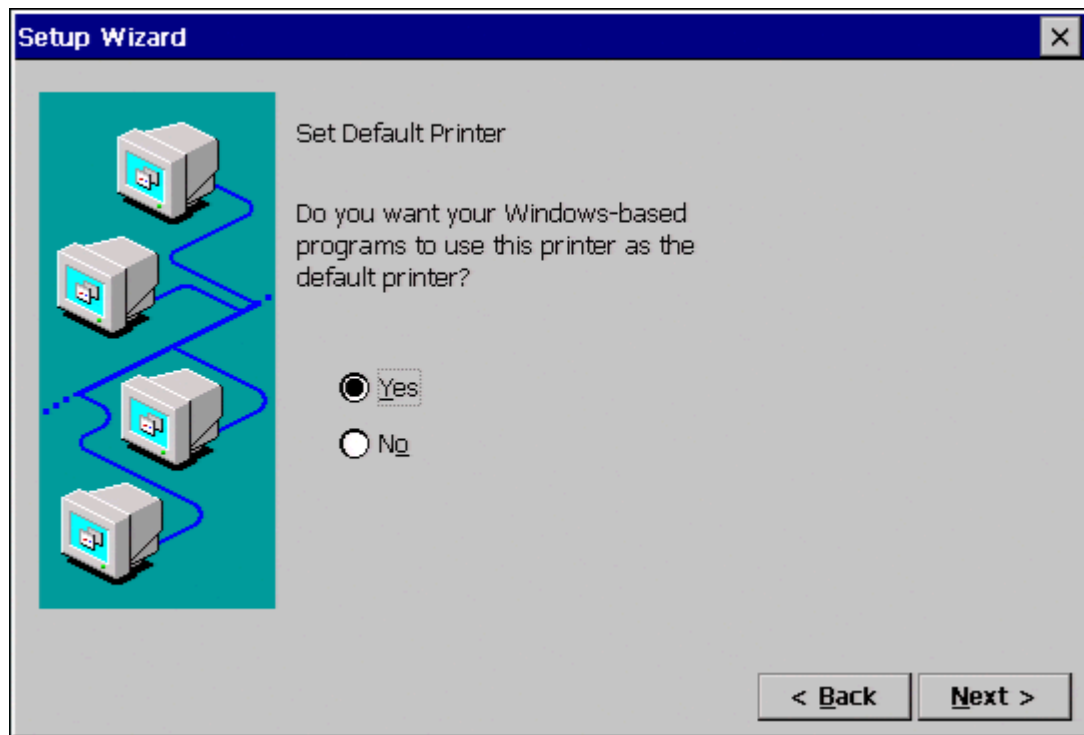
In the **Set Default Printer** dialog box, select whether or not you want your Windows-based programs to use this printer as the default printer (**Yes** is the default selection). Click on **Next** to go to the next step.

Figure 3-16   Configure Another Printer Dialog Box
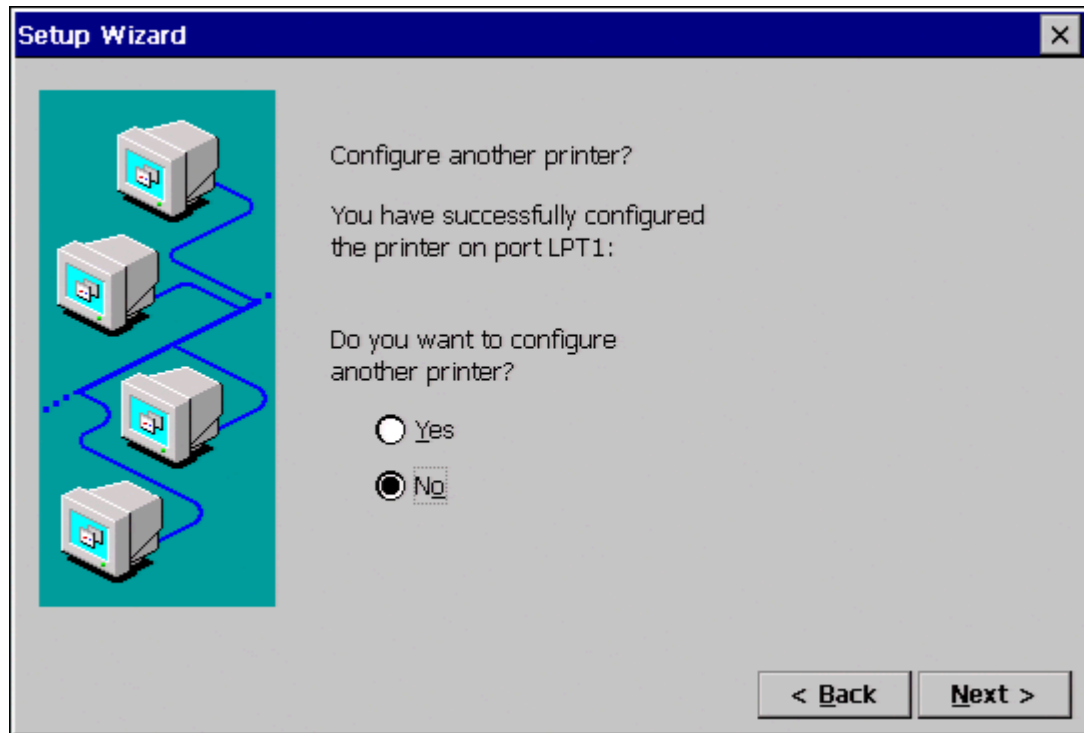
If you have another printer connected to a different port on your terminal, select **Yes** in the **Configure another printer** dialog box. Click on **Next** to go to the next step. If you selected **Yes**, the printer setup process will repeat. If you selected **No**, the **Finish** dialog box will open.

Figure 3-17   Finish Dialog Box
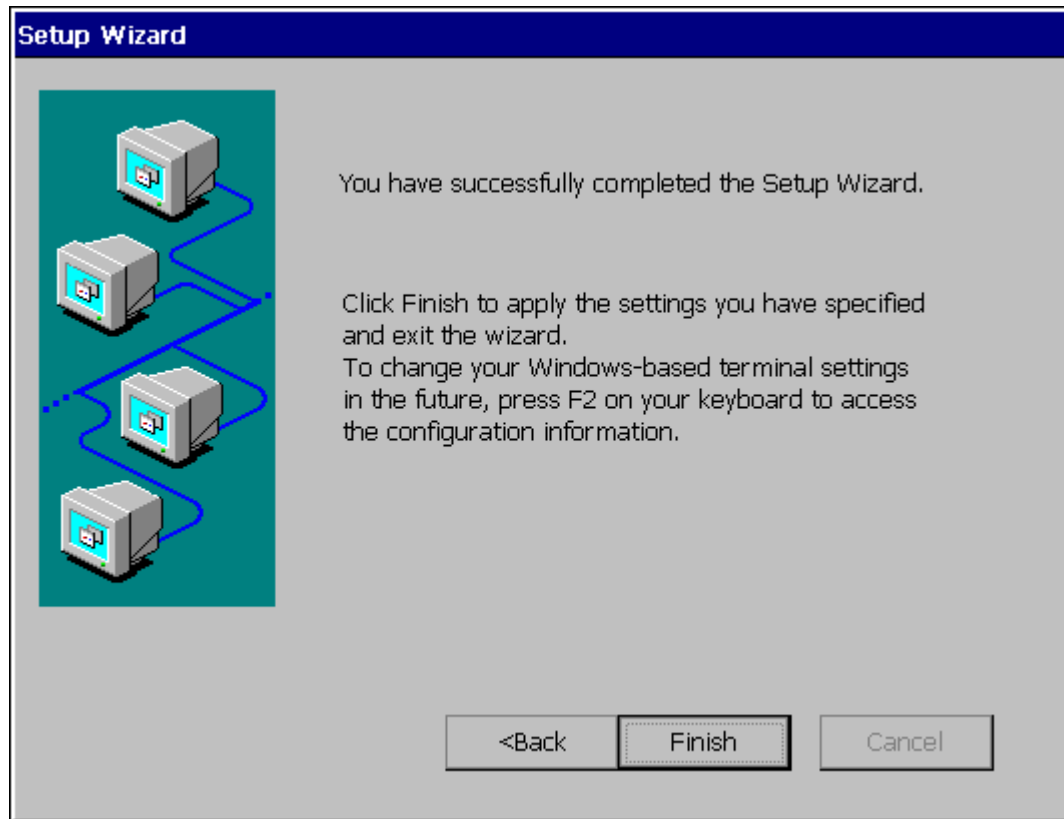
The **Finish** dialog box is informational.

Click on the **Finish** command button to apply your selections and quit the **Setup Wizard**. After the **Setup Wizard** closes, the **Terminal Settings Change** dialog box displays.

Figure 3-18   Terminal Settings Change Dialog Box

When you click on **Restart**, the terminal will go through the boot process and restart in the normal operating mode. If you want to change any of the selections after you restart, press **F2** to open the **Terminal Properties** dialog box (see "Changing Terminal Properties" for instructions).

4 Changing Terminal Properties

Terminal properties can be changed or reconfigured at any time during normal terminal operation using the **Terminal Properties** dialog box. Figure 4-1 shows this dialog box.

Using the Terminal Properties Dialog Box

Invoke the **Terminal Properties** dialog box by pressing the **F2** key from the **Connection Manager**.

The **Terminal Properties** dialog box consists of a total of 11 properties sheets that can be invoked by clicking on their individual tabs. The following 6 sheets are used to change terminal properties:

- **Network** - discussed in "Network Configuration"
- **Upgrade** - beginning with "Cable Firmware Upgrades".
- **Security** - beginning with "Security Properties"
- **Web** - discussed in "Web Browser"
- **Apps** - beginning with "Additional Applications"
- **Devices** - beginning with "Devices Properties
- **Printers** - discussed in "Local Printers"

The **General**, **SysInfo**, **Input**, and **Display** properties sheets are discussed in "General Terminal Information" and "Display Configuration" and "Keyboard and Mouse Configuration" in the *T10x0 Series WBT Users Guide.*

Figure 4-1 Terminal Properties Dialog Box
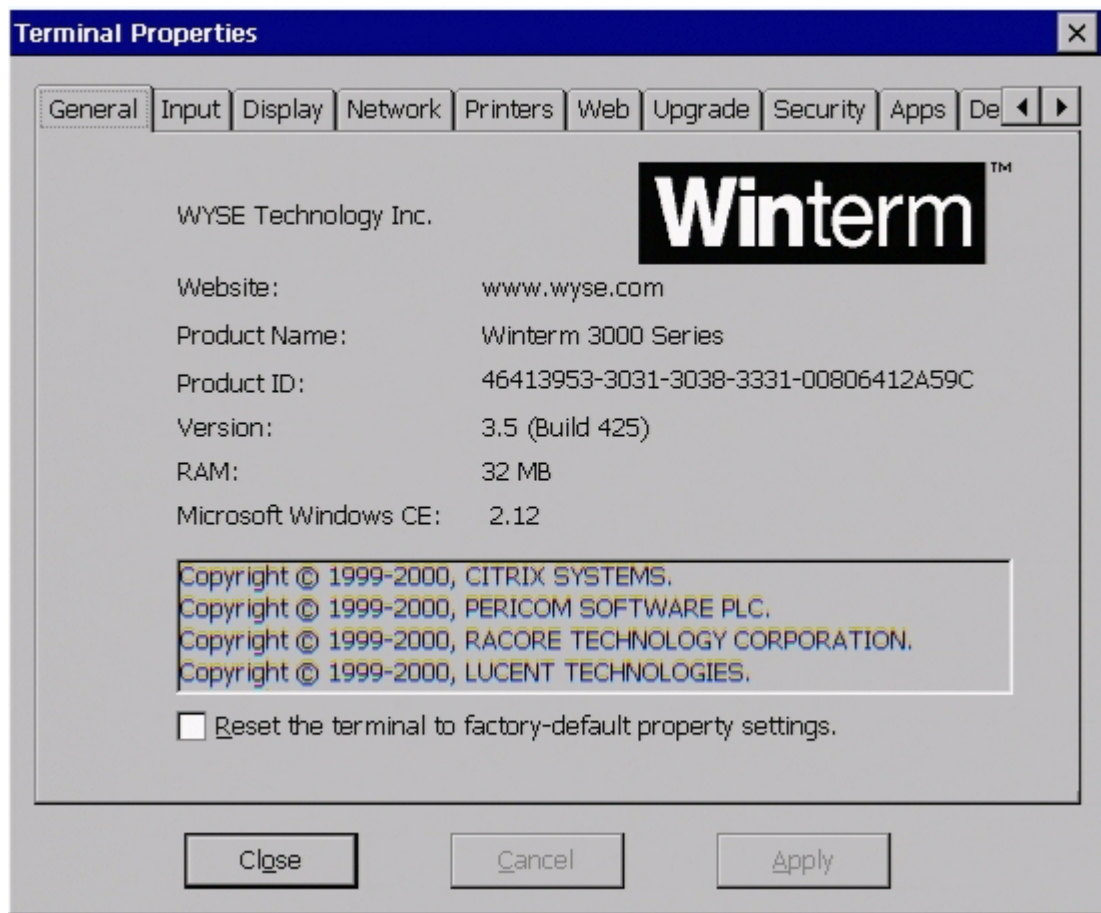
> ☑ **Note**
>
> The amount of available RAM may differ between terminal models.

Resetting to Factory Defaults

Proceed as follows:

1. Click on the General tab of the **Terminal Properties** dialog box.

2. Click on the **Reset the Terminal to Factory Default Property Settings** check box. Figure 4-2 shows the **System Settings Change** dialog box that displays.

3. Click on **Yes** to start the reset process. The terminal will restart with the factory defaults in effect. The **Setup Wizard** displays when the terminal resets.

☑ **Note**

If the above reset procedure fails, call technical support at Compaq (800-OKCOMPAQ) for instructions on using a hot-key reset procedure.

Figure 4-2   System Settings Change Dialog Box
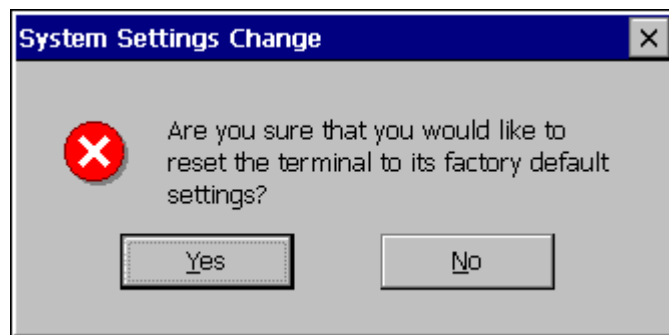
Terminal Settings Change Dialog Box

When you change terminal properties using the **Setup Wizard** or the **Terminal Properties** dialog box, you will click on either the **Finish** or **OK** command button to save your new settings and close the application. The **Terminal Settings Change** dialog box will then display. Figure 4-3 shows the **Terminal Settings Change** dialog box.

Figure 4-3   Terminal Settings Change Dialog Box

This dialog box contains the **Restart** command button. The terminal must be restarted in order for your new settings to take effect. Click on **Restart** to restart the terminal. The **Connection Manager** displays. See "Connections Management" for detailed information about configuring and making terminal connections.

5 Network Configuration

The **Network** properties sheet lets you configure your network. See Figure 5-1 to view this properties sheet.

Using the Network Properties Sheet

To invoke this properties sheet:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Network** tab.

Figure 5-1   Network Properties Sheet

The following table discusses the functions of the **Network** properties sheet.

Table 5-1   Network Properties Sheet

Function	Description
Obtain an Address from a DHCP Server	Click on this radio button to enable DHCP addressing. An IP address will be automatically assigned to your terminal by the DHCP server.
Specify an IP Address	Use this group box to enter a specific IP address.
	IP Address Enter a static IP address in this field.
	Subnet Mask Enter the subnet mask of the IP address.
	Gateway Enter the gateway of the IP address.
Terminal Name	Enter a name of your choice for the terminal.
Network Speed	Use this scroll list to select a network communication speed. The choices are (in Mb/s): • **Auto Detect** (default) • 10 Mbs - Half Duplex • 10 Mbs - Full Duplex • 100 Mbs - Half Duplex • 100 Mbs - Full Duplex ☑ **Note** If you do not know your network's communication speed or whether the communication link should be half- or full-duplex, contact your system administrator.

Table 5-1   Network Properties Sheet, Continued

Function	Description
Advanced Network	The **Advanced Network** command button is enabled if **Specify an IP Address** is selected or if a DHCP server was detected on start-up or and **Obtain an IP address from a DHCP server is selected**. Click on this command button to invoke the **Advanced Network Settings** dialog box:

Enable DNS
Use the controls in this group to set domain, primary, and secondary IP addresses for DNS. The default for the group is disabled (**Enable DNS** not checked).

Enable WINS
Use the controls in this group to set the primary and secondary IP addresses of a WINS server. The default for the group is disabled (**Enable WINS** not checked).

6 Web Browser

The **Web** properties (Figure 6-1) sheet lets you configure the Internet Explorer browser.

☑ **Note**

System time should be set accurately for cookies to work properly for some Web pages. Use of a time server is preferred. See "SNTP Client" in External Devices for information about synchronizing system time to a time server.

Using the Web Properties Sheet

To invoke this properties sheet:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Web** tab.

Figure 6-1   Web Properties Sheet
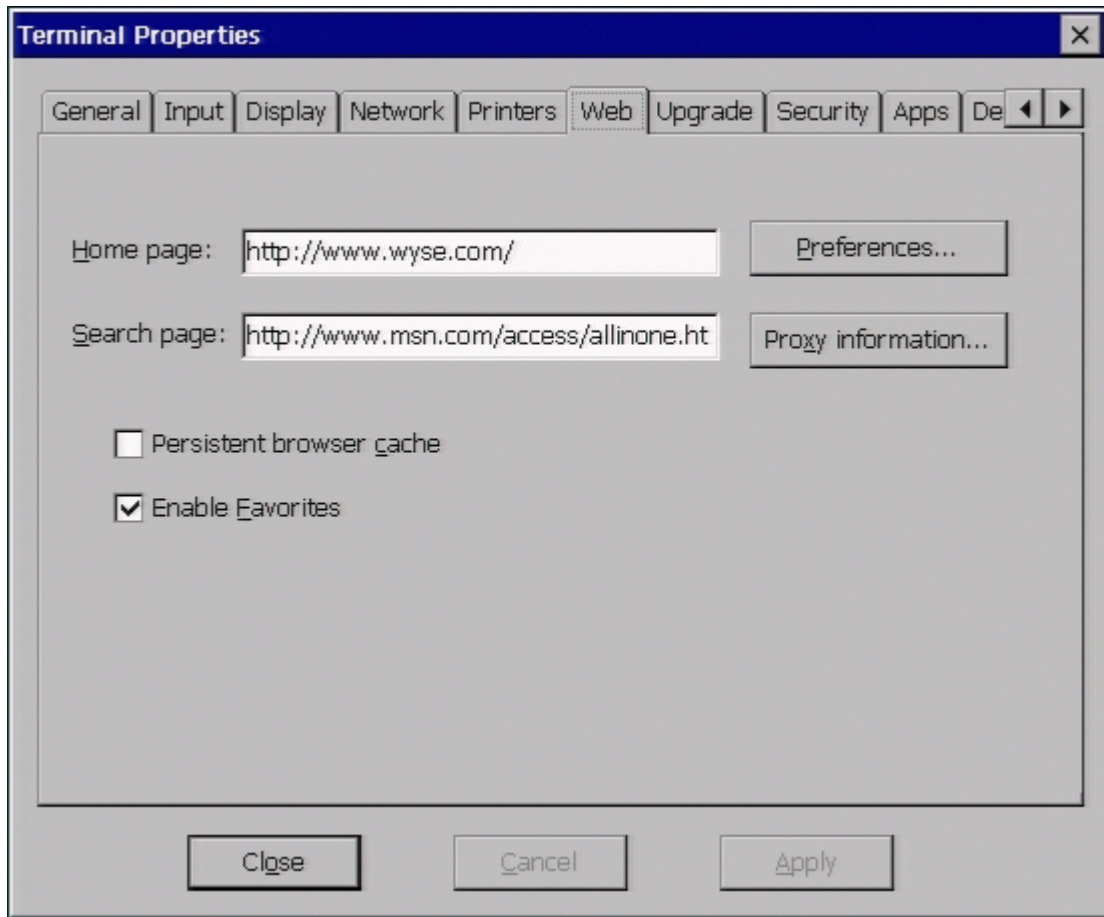
Table 6-1 discusses the functions of the **Web** properties sheet.

Table 6-1   Web Properties Sheet

Function	Description
Home page text box	Enter the URL of the Web page that will open initially upon launching the Browser.
Search page text box	Enter the URL of the search engine home Web page or a Web page that has links to a variety of search engines.
Persistent browser cache check box	Check this box if you want the contents of the browser cache to be retained between sessions.
Enable Favorites check box	Check this box to enable the favorites table in the browser.
Preferences... command button	Opens the **Preferences** dialog box (Figure 6-2). Make selections indicated by the prompts in this dialog box.
Proxy Information... command button	Opens the **Proxy Information** dialog box (Figure 6-3). If your terminal accesses the Internet through a proxy server check the **Use proxy server** box and make the appropriate entries in the now-enabled text and check boxes.

☑ **Note**

For instructions on using the browser, refer to the
T1000/T1010 Windows-based Terminal Users Guide.

Figure 6-2   Preferences Dialog Box
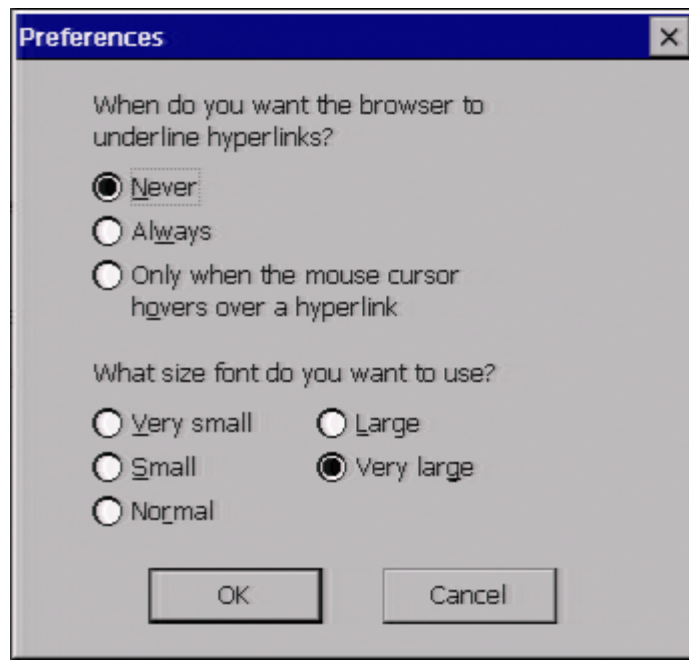
Figure 6-3   Proxy Information Dialog Box
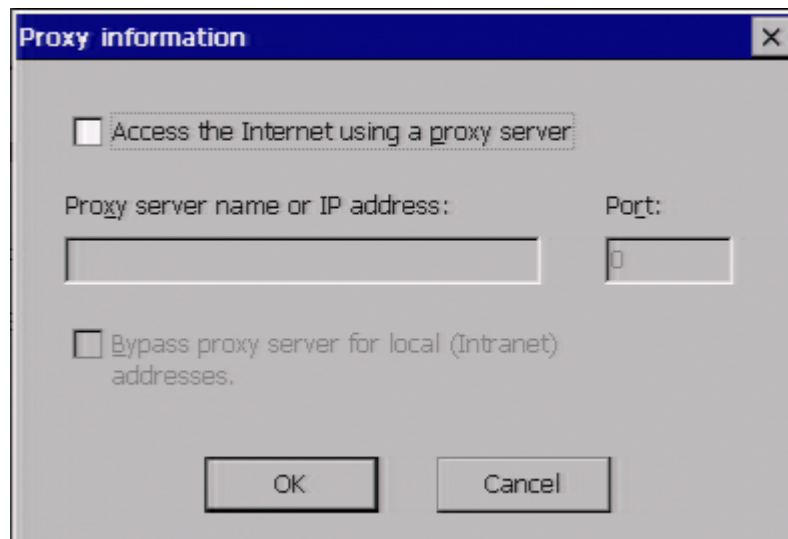
7 Additional Terminal Applications

The **Apps** properties sheet contains functions for ICA, RDP, DHCP, and SNMP management options. See Figure 7-1.

Using the Apps Properties Sheet

Figure 7-1 shows this properties sheet. To invoke the **Apps** properties sheet:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Apps** tab in the **Terminal Properties** dialog box.

Table 7-1 describes the functions of the **Apps** properties sheet.

Figure 7-1   Apps Properties Sheet)
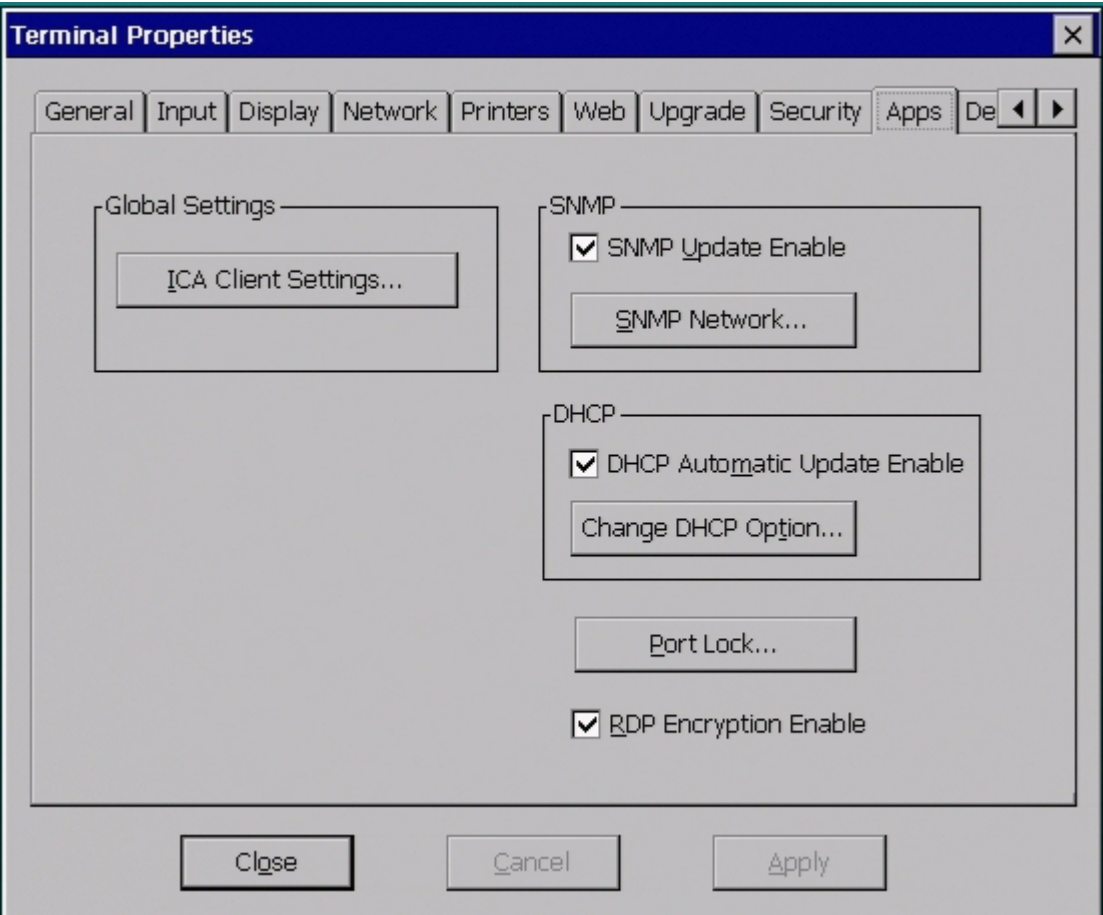
Table 7-1   Apps Properties Sheet

Function	Description
Global Settings	Group box used to manage ICA sessions.
	ICA Client Settings Click on the **ICA Client Settings** command button in the **Global Settings** group box. See "ICA Client Settings" in the Advanced User Interface section for details about ICA client settings.

Table 7-1 Apps Properties Sheet, Continued

Function	Description
SNMP Update Enable	Check this box to enable terminal firmware updates through SNMP.
SNMP Network...	Use this command button to invoke the **SNMP Network Administration** dialog box. See "SNMP Firmware Upgrades" in Firmware Upgrades for details about this dialog box.
DHCP Automatic Update Enable	Check this box to enable automatic firmware upgrades. See "DHCP Firmware Upgrades" in Firmware Upgrades for details.
Change DHCP Option...	Use this command button to invoke the **Change DHCP Option IDs** dialog box. See "DHCP Firmware Upgrades" in Firmware Upgrades for details.
Port Lock	Click on the **Port Lock** command button to invoke the **Port Lock** dialog box:
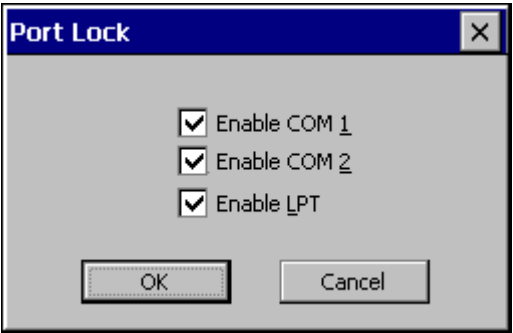
Use the list of check boxes in the dialog box to select which ports you want to lock (enable). The default is all boxes checked.

| **RDP Encryption Enable** | Click this check box to check and enable RDP encryption. By default this function is enabled. |

> ⊠ **Caution**
> If your WTS server does not support encryption, this function must be disabled.

8 ICA Client Settings

ICA client settings are handled in the **Global ICA Client Settings** dialog box. This dialog box is invoked through the **Apps** properties sheet found in the **Terminal Properties** dialog box. See "Additional Terminal Applications" for detailed information about the **Apps** properties sheet. Figure 8-1 shows the **Global ICA Settings** dialog box.

Figure 8-1   Default Hotkeys Properties Sheet
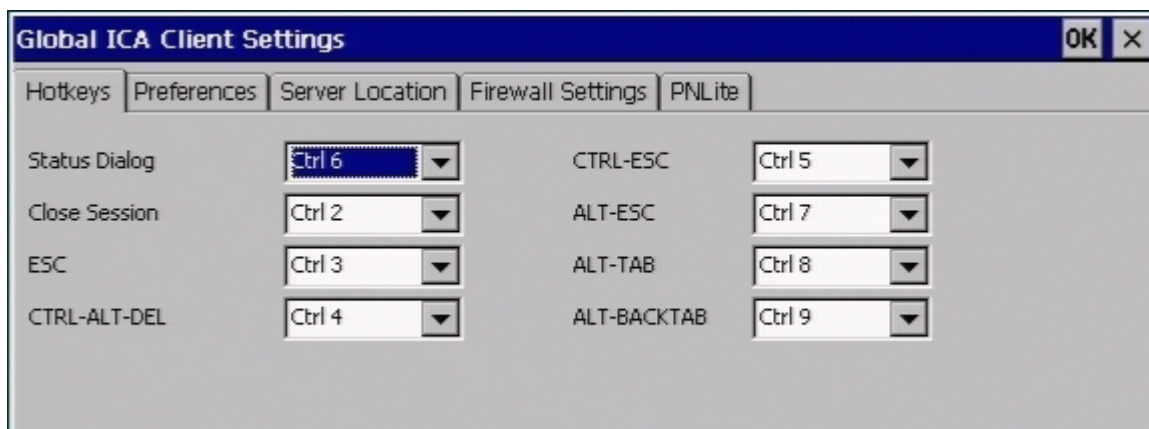
> ☑ **Note**
> An ICA session must be running for these hotkeys to function.

Using the Global ICA Client Settings Dialog Box

To invoke the **Global ICA Settings** dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Apps** tab in the **Terminal Properties** dialog box.

3. Click on the **ICA Client Settings** command button in the **Global Settings** group box.

There are five properties sheets associated with the **Global ICA Client Settings** dialog box. A description of the functions of each sheet follows.

Setting the Default Hotkeys

Hotkeys can be used during ICA sessions to invoke various functions. Some hotkeys control the behavior of ICA windows, while others emulate standard Windows hotkeys. To set hotkeys, access the **Default Hotkeys** properties sheet. It is the default properties sheet for the **Global ICA Client Settings** dialog box. The following figure shows the **Default Hotkeys** properties sheet.

Use the pull-down scroll boxes on the **Default Hotkey** properties sheet to customize default hotkey key sequences. The following table describes the hotkeys.

Table 8-1   Default Hotkeys Properties Sheet

Function	Description
Status Dialog	This function displays ICA connection status.
Close Session	This function disconnects an ICA client from a server and closes the client window on the local desktop. When you use this hotkey, the open session continues to run on the server. If you do not want to leave the session running in a disconnected state, log off.
Esc	Functions as Esc (escape) key.
Ctrl+Alt+Del	This hotkey displays the **Windows NT Security** dialog box.
Ctrl+Esc	• On WinFrame servers, pressing this key sequence displays the **Remote Task List**. • On MetaFrame servers, pressing this key sequence displays the Windows NT **Start** menu.

Table 8-1   Default Hotkeys Properties Sheet, Continued

Function	Description
Alt+Esc	This hotkey cycles the focus through the minimized icons.
Alt+Tab	This hotkey cycles sequentially through applications that are open. A window appears to display the applications as you cycle through them.
Alt+Backtab	This hotkey cycles sequentially through applications that are open in a session, but in the opposite direction.

Setting Terminal Preferences

Use the **Preferences** properties sheet to change default settings. To invoke the **Preferences** properties sheet:

1. Click on the **ICA Client Settings** command button on the **Apps** properties sheet.

2. Click the **Preferences** tab.

The **Preferences** properties sheet displays. Figure 8-2 shows the **Preferences** properties sheet.

Figure 8-2   Preferences Properties Sheet
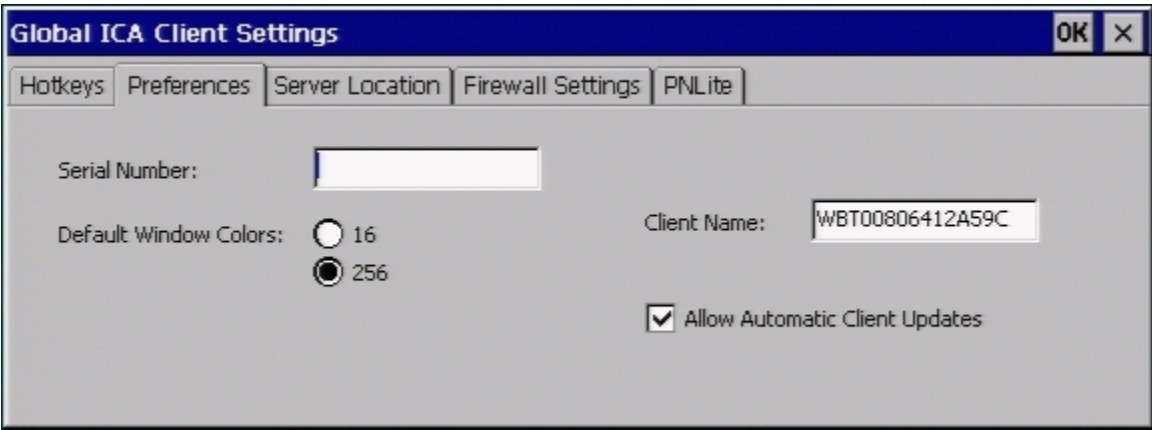
The following table describes each function of the properties sheet.

Table 8-2   Preferences Properties Sheet

Function	Description
Serial Number	This is the serial number of your ICA Client software. This field is only necessary when you are using the ICA Windows CE Client with a product such as WinFrame Host/Terminal, which requires each client to have a Citrix PC Client Pack serial number in order to connect to the server. If a serial number is required, you must enter it exactly as it appears on the serial number card. The **Serial Number** field is not used by MetaFrame servers.
Default Window Colors	Two or three radio buttons are displayed. If the terminal **Color Palette** (using the **Display** properties sheet in the **Terminal Properties** dialog box) is **256 colors**, radio buttons for **16** or **256** colors are displayed. If **65536** is selected in the **Color Palette**, after restarting the terminal an additional radio button, **Thousands**, is displayed.

> ✓ **Note**
> The ICA server must be capable of supporting 16-bit color for the **Thousands** selection to work. If not, the terminal will display only 256 (8-bit) colors when **Thousands** is selected.

When using a PPP connection, 16 color mode may provide faster performance. If the window options specified exceed the capabilities of the client hardware, the maximum size and color depth supported by the CE operating system are used.

Table 8-2   Preferences Properties Sheet, Continued

Function	Description
Client Name	This text box allows you to change the client name of your client device. The Citrix server uses the client name to uniquely identify resources (such as mapped printers) associated with a given client device. The client name should be unique for each computer running a copy of a Citrix ICA Client. If you do not use unique client names, device mapping and application publishing may not operate correctly. The default is **WBT<mac address>**. The maximum length of the client name is **15 characters.**
Allow Automatic Client Updates check box	Use the Client Auto Update feature to store new versions of Citrix ICA Clients. The ICA Client software is stored in a client update database and downloaded to the terminal when a user connects to the Citrix server.

Setting the Server Location

Use the **Server Location** properties sheet to construct a list of ICA servers. To invoke this properties sheet:

1. Click on the **ICA Client Settings** command button on the **Apps** properties sheet.

2. Click the **Server Location** tab.

The **Server Location** properties sheet displays. The following figure shows this sheet.

Figure 8-3   Server Location Properties Sheet
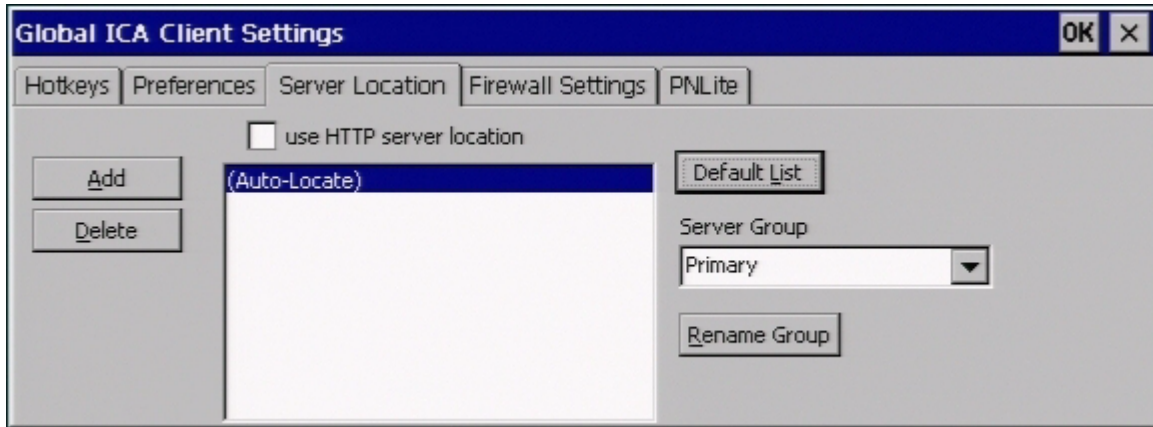
The following table describes each of the functions of this sheet.

Table 8-3   Server Location Properties Sheet

Function	Description
Add	Click on this command button to open the **Add Server Address** dialog box. The server is added to the selected server group. If you checked **use HTTP server location**, you must enter the server address and port to use.
Delete	Use this button to delete the name or IP address of a server from the selected group.
use HTTP server location	Check this box if your firewall restricts UDP broadcasts. This option enables the client to retrieve a list of all Citrix servers on the network and a list of all published applications from a Citrix server that is behind a firewall.
Default List	Use this button to recall the previous server list.

Table 8-3   Server Location Properties Sheet, Continued

Function	Description
Server Group	Use this drop-down list to select whether the servers entered in the Address List field belong to your Primary, first backup (Backup 1), or second backup (Backup 2) group.
Rename Group	Opens the **Rename Server Location Group** dialog box.

Setting Up a SOCKS Firewall

Use the **Firewall Settings** properties sheet to set up a SOCKS (Socket Secure) firewall. To invoke this properties sheet:

1. Click on the **ICA Client Settings** command button on the **Apps** properties sheet.

2. Click the **Firewall Settings** tab.

The properties sheet displays. The following figure shows this sheet.

Figure 8-4   Firewall Settings Properties Sheet
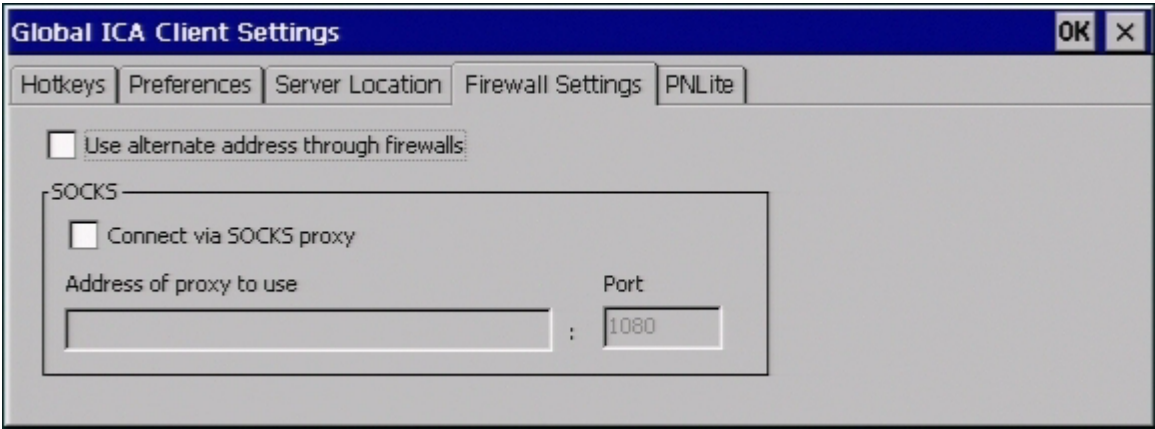
The following table describes each of the functions of this sheet.

Table 8-4   Firewall Settings Properties Sheet

Function	Description
Use Alternate Address Through Firewalls	By default the box is not checked.
SOCKS	Use this group box to enable and configure SOCKS protocol. **Connect Via SOCKS Proxy** Check this box to enable a SOCKS proxy connection. SOCKS is a protocol that sets up a proxy server between a client and a server. This proxy server then acts as a channel for communication between the client and server. By default the box is not checked. **Address of Proxy to Use** Enter in this text box the address of the proxy server. By default this box is deactivated. **Port** Enter in this text box the port number. By default this box is deactivated.

Setting Up a PNLite

PNLite is an ICA connection mode that enables the terminal to connect to applications available on a Citrix server without having to configure connections for each published application.

✔ **Note**

Refer to "NFuse Server Configuration Requirements" for an explanation of the differences between the methods of accessing published applications via the NFuse server and limitations on the NFuse server application setup for use with Model T10x0 series terminals.

✔ **Note**

PNLite connections are not supported by failover (See "Failover").

To invoke this properties sheet:

1. Click on the **ICA Client Settings** command button on the **Apps** properties sheet.

2. Click the **PNLite** tab.

The properties sheet displays. The following figure shows this sheet.

Figure 8-5   PNLite Properties Sheet

The following table describes each of the functions of this sheet.

Table 8-5   PNLite Properties Sheet

Function	Description
Enable PNLite	Check to enable the PNLite application.
Server area	Enter the address and port number of the NFuse server in the **Address and port of NFuse server** text boxes.
User credentials area	Enter the requested information in the **User Name**, **Password**, and **Domain** text boxes. Check the **Save password** box if you want the password retained on the terminal.

Connection Configuration

9 Creating New Connections

The **New Connection** dialog box is used to create new connections. Figure 9-1 shows the **New Connection** dialog box.

Figure 9-1   New Connection Dialog Box
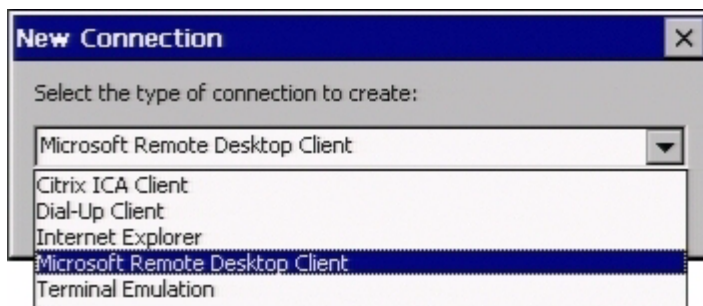
Using the New Connection Dialog Box

To invoke the dialog box:

1. Click on the **Configure** tab in the **Connection Manager** dialog box.

2. Click on the **Add** command button on the **Configure** properties sheet.

See "Connection Configuration" for details about the **Connection Manager**.

Use the scroll list shown in the dialog box above to select the type of connection protocol you want. When you choose from the list above, you are deciding which connection protocol you want to use to connect to a server. Six selections are available.

Choosing a Connection Protocol

The following table describes the differences between the connections available with your WBT.

Table 9-1   New Connection Dialog Box

Connection Protocol	Description
Citrix ICA Client	ICA (Independent Computing Architecture) protocol, which connects to an ICA (Winframe/Metaframe) server. See "ICA Connections" for further instructions about how to create this kind of connection.
Dial-Up Client	Connects using a modem and PPP (Point-to-Point Protocol). See "Dial-Up Connections" for further instructions about how to create this kind of connection.
Microsoft Remote Desktop Client	RDP (Remote Desktop Protocol), which connects to a WTS (Windows Terminal Server) server. See "RDP Connections" for further instructions about how to create this kind of connection.
Internet Explorer	Local browser (Internet Explorer) connection. See "Internet Explorer Connections" for further instructions about how to create this kind of connection.
Terminal Emulation	Connects to multiple terminal emulation applications. See "Terminal Emulation Connections" for further instructions about how to create this kind of connection.

Once you have made your selection, click on **OK** to proceed with creating a connection.

> ✅ **Note**
>
> A **Use Printer Configuration Utility** check box is
> encountered in two places:
> **(1) Connection Manager** (Select an ICA Connection) **|**
> **Edit | Edit Connection Details | Options tab**, and
> **(2) Connection Manager | Add |** (Select **Citrix ICA**
> **Client** | Wizard leading to **Printing, Compression,**
> **Cache, Encryption and Sound** dialog box.
>
> The box is checked by default. Uncheck the box if you
> desire to use the standard Windows printer setup. Also
> un-check the box for CDS printing.

Using the Startup Function

Your terminal can be set to automatically connect to a server when you turn your
terminal on. This function is set using the **Connection Startup** dialog box. The
following figure shows this dialog box.

Click on one of the two radio buttons in the **Startup Options** group box (in the
Connection Startup dialog box above) to select a start-up option:

Figure 9-2   Connection Startup Dialog Box
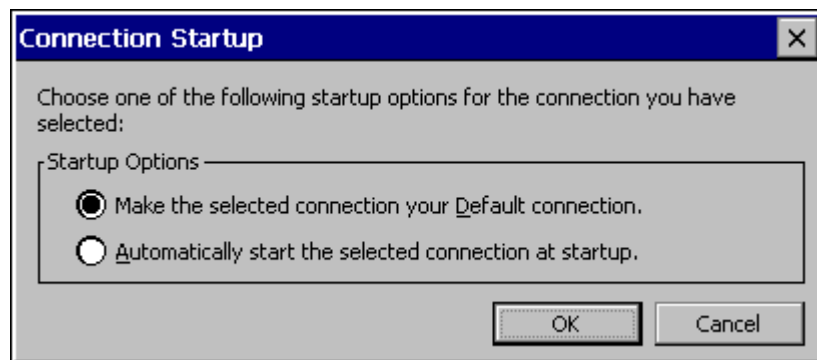
To invoke the **Connection Startup** dialog box:

1. Click on the **Configure** tab in the **Connection Manager** dialog box.

2. Click on the **Startup** command button on the **Configure** properties sheet.

The following table describes the functions of this dialog box.

Table 9-2   Connection Startup Dialog Box

Function	Description
Make the Selected Connection Your Default Connection	Click this radio button to use the connection you selected in the **Connection Manager** as the default connection. The default connection is the connection that always appears in the **Connection Name** list.
Automatically Start the Selected Connection at Startup	Click this radio button to start the connection you selected in the **Connection Manager** automatically at startup.

Note

Autostart status may be modified for individual users using the **Add/Modify User Account** dialog box accessed from the **Security** tab.

Note

The functions in the **Startup Options** group box are selected using radio buttons and are thus mutually exclusive.

10 ICA Connections

Use the **Specify Connection Type** dialog box to start configuring an ICA connection. The ICA protocol connects you to a server running Citrix WinFrame or MetaFrame.

Using the ICA Connections Wizard

When the **New Connection** dialog box is open (see "Creating New Connections"):

1. Use the drop-down scroll list to select **Citrix ICA Client**.

2. Click on **OK**.

Figure 10-1 shows the **Specify Connection Type** dialog box. This is the first dialog box that appears in the series.

- **Network Connection**
  - Click on this radio button to create a network ICA connection. This type of connection requires a direct line to the network, such as 10Base-T. See "Network Connections."

- **Dial-In Connection**
  - Click on this radio button to create a serial ICA connection. This type of connection is made using a modem or a direct connection. See "Dial-Up Connections."

Figure 10-1   Specify Connection Type Dialog Box
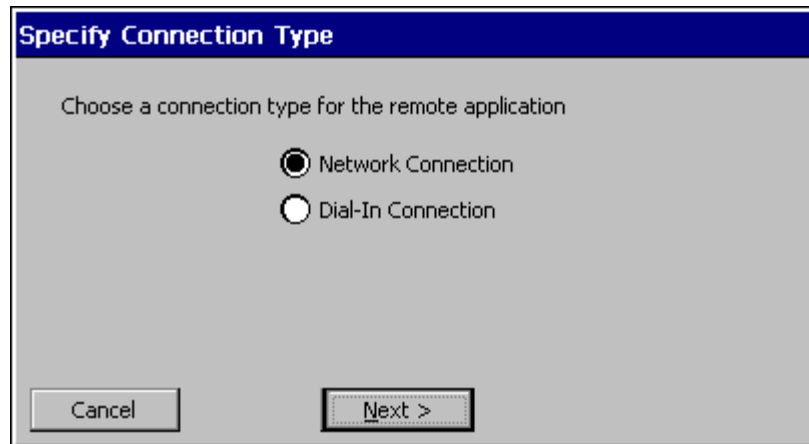
Network Connections

Select **Network Connection**, then click on the **Next** button. A Citrix search message displays:

Figure 10-2   Citrix Search Message
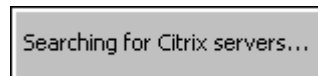
If the connection is found, the following sequence of dialog boxes displays. Use them to set up your network ICA connection.

Figure 10-3   Select a Citrix Server or Published Application Dialog Box
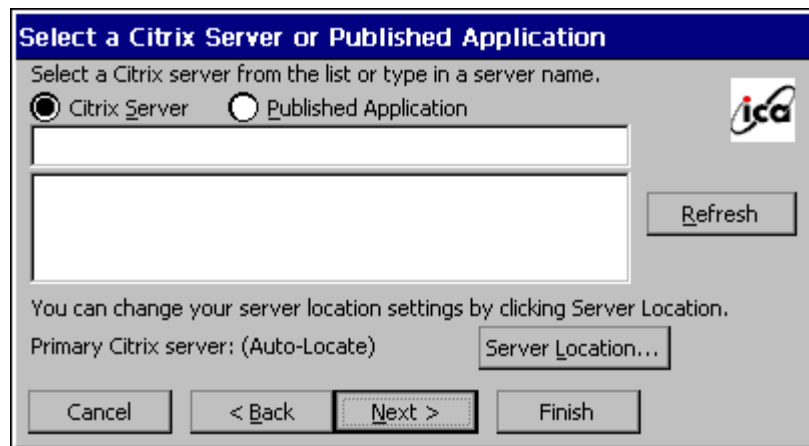
To use the **Select a Server or Published Application** dialog box:

1. Click on either **Citrix Server** or **Published Application**.

2. Select a server or an application from the drop-down scroll list, or type the information in the text entry box.

> ☑ **Note**
>
> The **Refresh** command button refreshes the drop-down scroll list.

> ☑ **Note**
>
> The **Server Location** command button invokes the **Server Location** dialog box. The server in **Server Location** will act as a master browser for creation of the **Address** list. See Figure 10-4.

Figure 10-4 Server Location Dialog Box
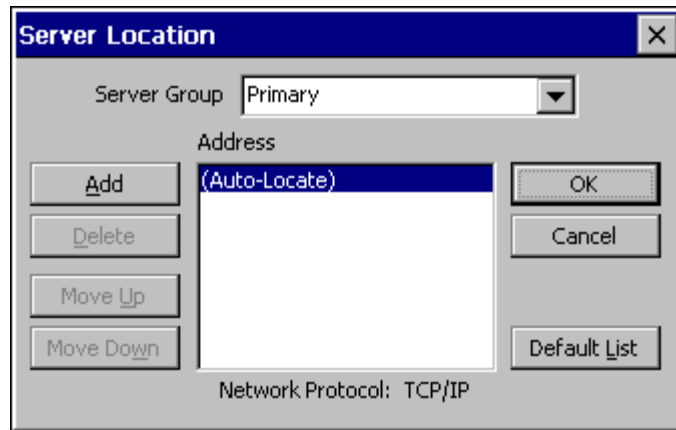
3. If you want to add a server name or IP address, click on the **Add** command button to invoke the **Add Server Address** dialog box.

Figure 10-5 Add Server Address Dialog Box
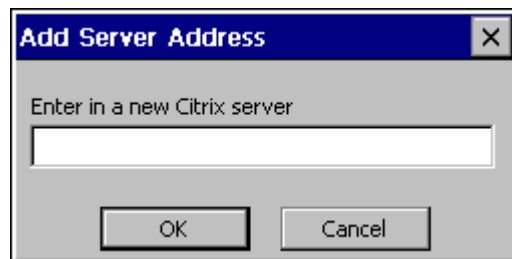
4. Enter the name or IP address of the Citrix server. Click on **OK** in this dialog box and then click on **OK** in the **Server Location** dialog box.

5. Click on **Next**.
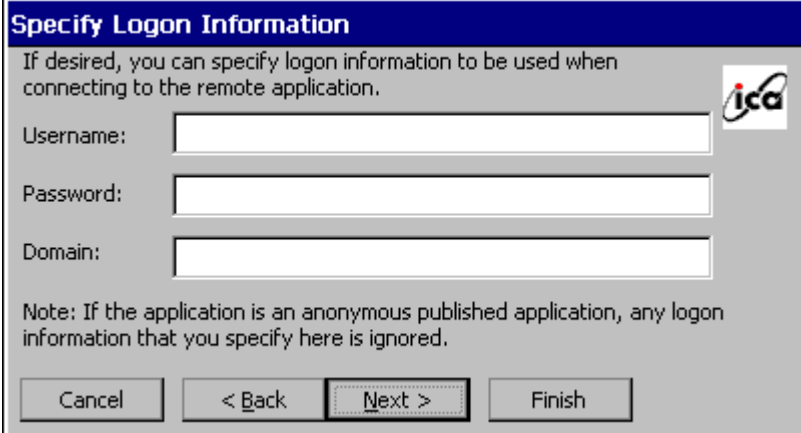
Figure 10-6   Select a Title for the ICA Connection Dialog Box
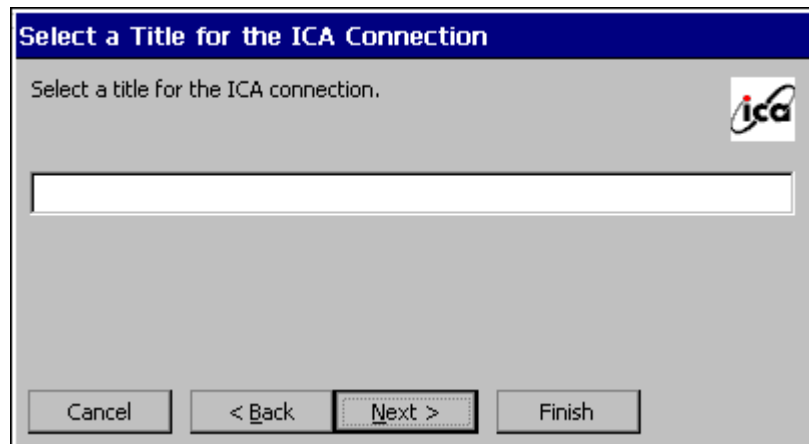
Enter a connection in the text box in the **Select a Title for the ICA Connection** dialog box, then click on **Finish**.

Figure 10-7   Specify an Application Dialog Box
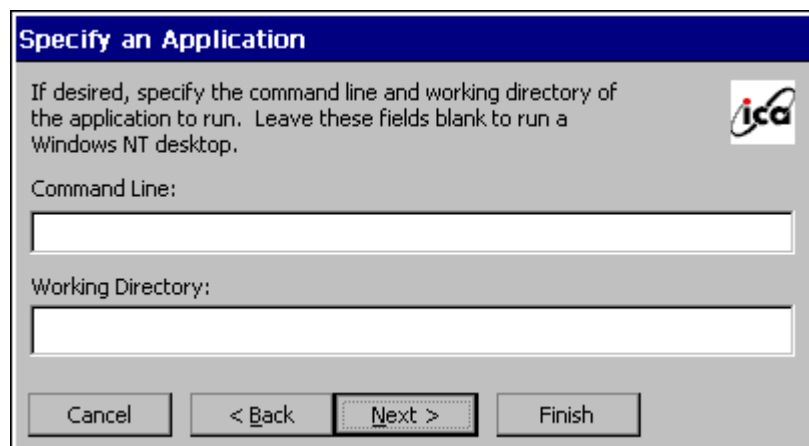
To use the **Specify an Application** dialog box:
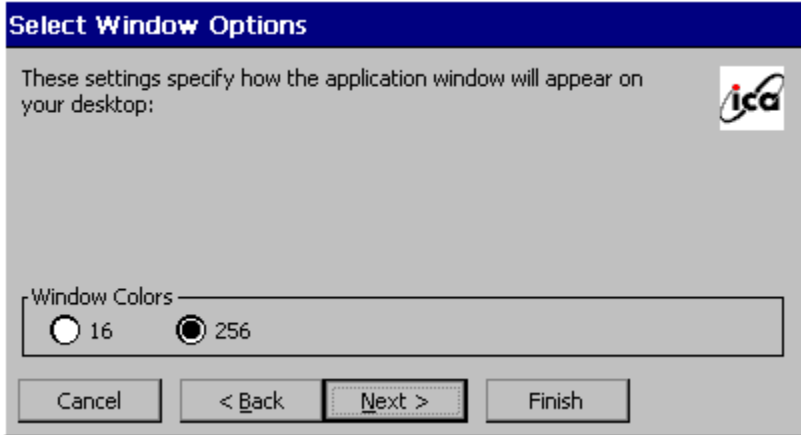
1. Enter the command line and directory of the application that you intend to invoke.

2. Click on **Next**.

Figure 10-8   Specify Logon Information Dialog Box

To use the **Specify Logon Information** dialog box:

1. If needed, enter a user name, a password, and a domain for connecting to an application.

2. Click on **Next**.

Figure 10-9   Select Window Options Dialog Box

To use the **Select Window Options** dialog box:

1. Click on the desired number of colors to display, **16**, **256,** (or **Thousands**).

Two or three radio buttons are displayed depending on the pallette selected. If the terminal **Color Palette** (**Display** properties sheet in **Terminal Properties** dialog box) is **256 colors**, radio buttons for **16** or **256** colors are displayed. If **65536** is selected in the **Color Palette**, after restarting the terminal an additional radio button, **Thousands**, is displayed in this dialog box.

> ✔ **Note**
> The ICA server must be capable of supporting 16-bit color for the **Thousands** selection to work. If not, the terminal will display only 256 (8-bit) colors when **Thousands** is selected.

2. Click on **Next**.

Figure 10-10   Compression, Encryption and Sound Dialog Box
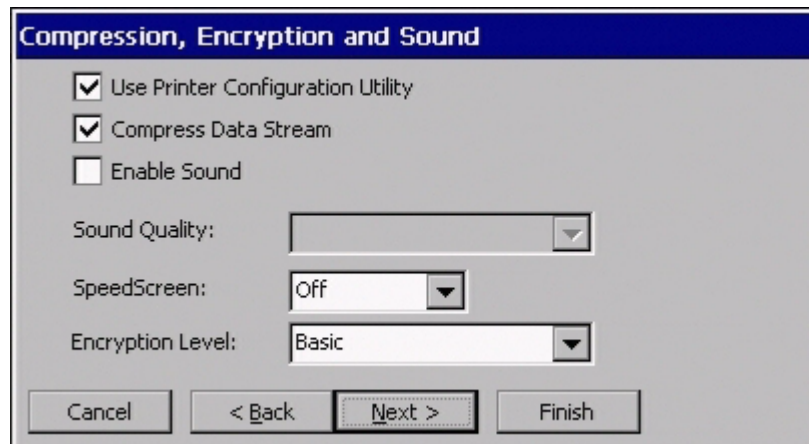
To use the **Compression, Encryption and Sound** dialog box:

1. Enable or disable the following functions:

    a. Use Printer Configuration Utility check box - See "Local Printers."

    a. Compress Data Stream check box **-** Applies compression.

    b. Enable Sound check box and **Sound Quality** check box **- High**, **Medium**, and **Low** sound quality selectable with this function.

    c. SpeedScreen drop-down menu - Allows selection of **Off** (default), **On**, or **Auto** for possible improvement of screen display performance.

SpeedScreen is a latency reduction feature that enhances the user's experience on slower network connections. It echos local text to accelerate display of input text on the terminal and provides visual feedback for mouse clicks to show that the user's input is being processed.

d. Encryption Level - Drop-down menu allows selection of the encryption level:

Basic (default)
RC5 (128 bit - Login Only)
RC5 (40 bit)
RC5 (56 bit)
RC5 (128 bit)

2. Click on **Next**.

Figure 10-11   Firewall Settings Dialog Box
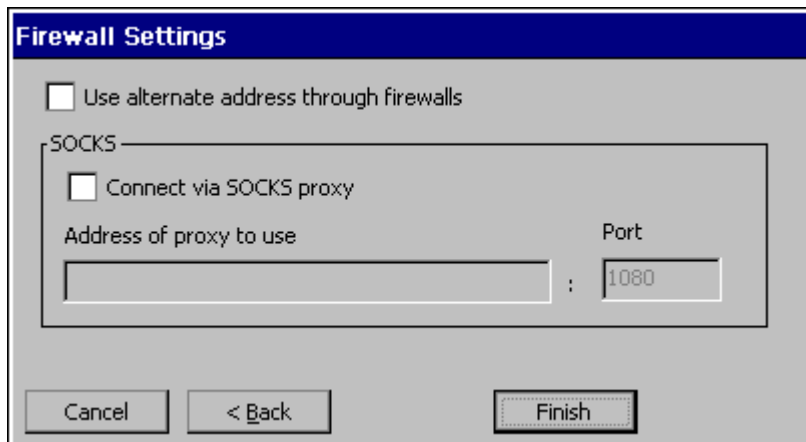
1. Enable or disable the following functions:

    a. Use Alternate Address Through Firewalls

    b. SOCKS

    c. Connect Via SOCKS Proxy

    d. Address of Proxy to Use

    e. Port

2. Click on **Finish**.

Dial-In Connection

✔ **Note**

This section applies only to the SE Model terminals.

Choose **Dial-In Connection**, then click on the **Next** button. The following sequence of dialog boxes displays. Use them to set up your dial-in ICA connection.

Figure 10-12   Dial-In Devices Dialog Box

To use the **Dial-In Devices** dialog box:

1. From the **Dial-In Device** drop-down scroll list, select one of the following:

   a. A modem connection such as **Hayes Compatible on Com1**.

   b. A serial connection such as **Serial Cable on Com1**.

2. Enter the area code, the phone number, and the country code in the appropriate fields.

3. Click on **Configure** to use the **Device Properties** dialog box. (See "Using the Device Properties Dialog box" for information on the **Device Properties** dialog box).

4. See Figure 10-6 through Figure 10-11 and the related text for information about the remainder of the dialog boxes in this sequence.

When you are finished with the configuration, the **Connection Manager** displays, listing your new ICA connection.

11 Dial-Up Connections

Use the **Dial-Up Configuration Wizard** to configure a dial-up connection. Dial-up connections use a modem and PPP to connect to a server.

Using the Dial-Up Configuration Wizard

From the **New Connection** dialog box (see "Creating New Connections"):

1. Use the drop-down scroll list to select **Dial-Up Client**.

2. Click on **OK**.

Following are the three dialog boxes that display in succession during a dial-up configuration process. When you are finished with the configuration, the new connection will be added to the **Connection Name** list in the **Connection Manager**. See Figure 11-1 to view the first dialog box of the wizard.

Figure 11-1   Dial-Up Configuration Wizard 1

To use the first dialog box:

1. Enter a name for your dial-up connection (a maximum of 20 characters but not
    <>()[]\.*?:",|).

2. Click on **Next**.

Figure 11-2   Dial-Up Configuration Wizard 2
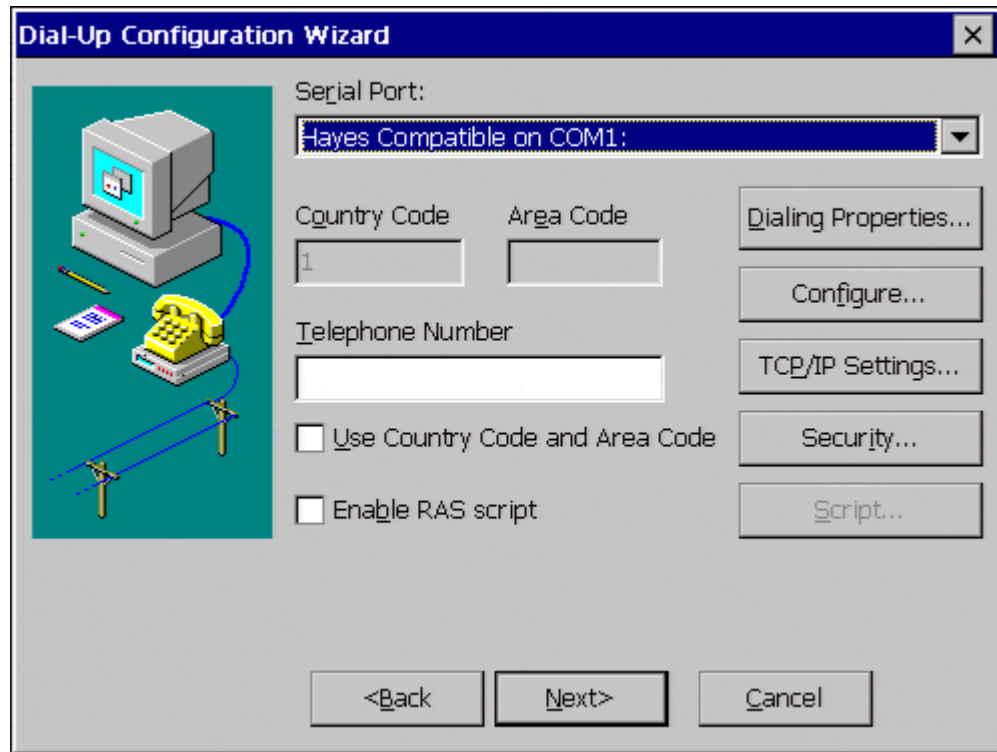
To use the second dialog box of the wizard:

1. Select from the **Serial Port** drop-down scroll list one of the following:

   a. A modem connection such as **Hayes Compatible on Com1**.

   b. A cable connection (serial connection) such as **Serial Cable on Com1**.

2. Enter your information in the pertinent fields. **Country Code** and **Area Code** will activate if **Use Country Code and Area Code** is enabled.

3. Click on the **Dialing Properties** command button to open the **Dialing Properties** dialog box. See "**Using the Dialing Properties Dialog Box**" for details about this dialog box.

4. Click on the **Configure** command button to open the **Device Properties** dialog box. See **"Using the Device Properties Dialog Box"** for details about this dialog box.

5. Click on the **TCP/IP Settings** command button to open the **TCP/IP Settings** dialog box. See "**Dial-Up TCP/IP Settings and Security**" for details about this dialog box.

6. Click on the **Security** command button to open the **Security Settings** dialog box. See "**Dial-Up TCP/IP Settings and Security**" for details about this dialog box.

7. Check the **Enable RAS Script** check box, and click on the **Script** command button to open the **RAS Script** dialog box. See "**Dial-Up Scripts**" for details about this dialog box.

8. Click on **Next**. This opens the dialog box shown in Figure 11-3.

To use the dialog box:

1. Enter your information in the pertinent fields. If you do not know the information, contact your system administrator.

2. Click on **Finish**.

The **Connection Manager** displays, listing your new dial-up connection.

Figure 11-3   Dial-Up Configuration Wizard 3
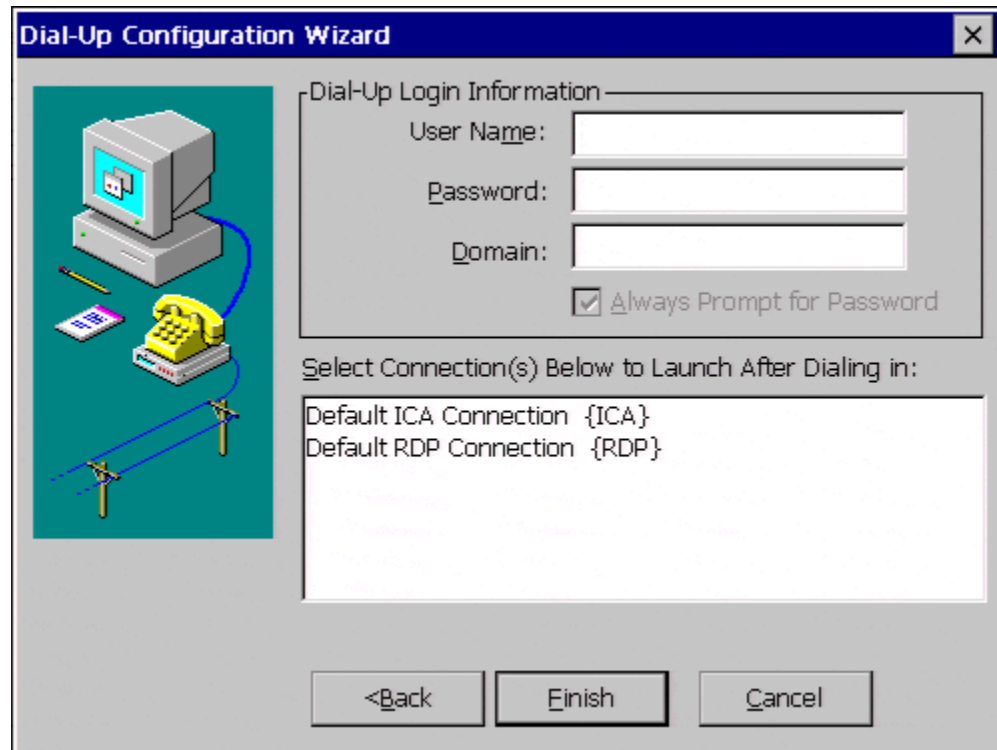
12 Dial-Up Dialing Properties and Configuration

The following sections provide information about some of the elements of the **Dial-Up Configuration Wizard**. This chapter covers dialing properties and device properties. Dialing properties are set using the **Dialing Properties** dialog box (Figure 12-1). Device properties are set using the **Device Properties** dialog box (Figure 12-2).
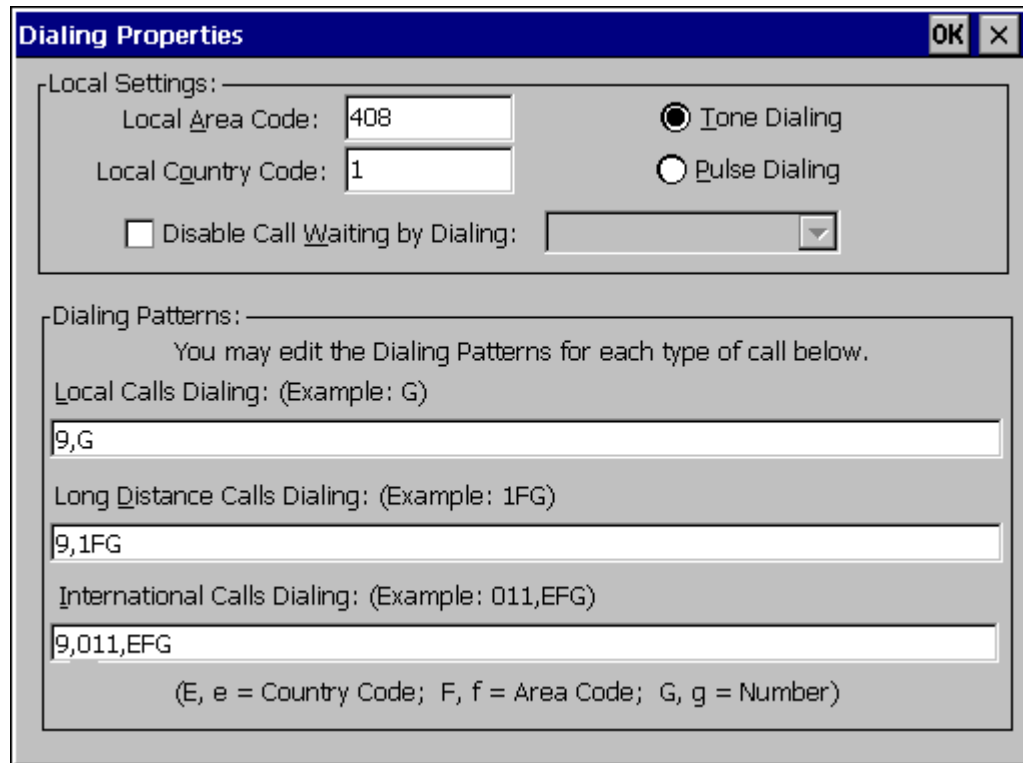
> ☑ **Note**
>
> See "Null Modem Cable Pin Assignments" for a
> suggested null modem cable for use with your terminal.

Using the Dialing Properties Dialog Box

Use the **Dialing Properties** dialog box to set the dialing properties for your dial-up connection. See "Dial-Up Connections" to find out how to invoke this dialog box.

Figure 12-1   Dialing Properties Dialog Box

The following table discusses the functions of the dialog box.

Table 12-1   Dialing Properties Dialog Box

Function	Description
Local Settings	Set local dialing locale and dialing type in this group box.

Local Area Code
Enter the local area code that you want to use.

Local Country Code
Enter the local country code of the country to which you are dialing. The default for this field is **1**.

Note

Refer to a phone directory for country codes.

Disable Call Waiting by Dialing:

1. Click on the check box.
2. Select from the drop-down scroll list one of the following:

- ***70,** (default)
- 70#,
- 1170,

Tone Dialing
Click on this radio button to enable tone dialing. **Tone Dialing** is the default.

Pulse Dialing
Click on this radio button to enable pulse dialing.

Table 12-1 **Dialing Properties Dialog Box, Continued**

Function	Description
Dialing Patterns	Use this group box to set your modem's dialing patterns.
	Local Calls Dialing Enter the local call dialing pattern. The default is **9,G**.
	Local Long Distance Calls Dialing Enter the long distance call dialing pattern. The default is **9,1FG**.
	International Calls Dialing Enter the international call dialing pattern. The default is **9,011,EFG.**
	✔ **Note** An explanation of the lettering scheme for dialing patterns is located below the function **International Calls Dialing**.

Using the Device Properties Dialog Box

Use the **Device Properties** dialog box to configure a device (modem) for a dial-up connection. See "Dial-Up Connections" to find out how to invoke this dialog box.

Figure 12-2 **Device Properties Dialog Box**
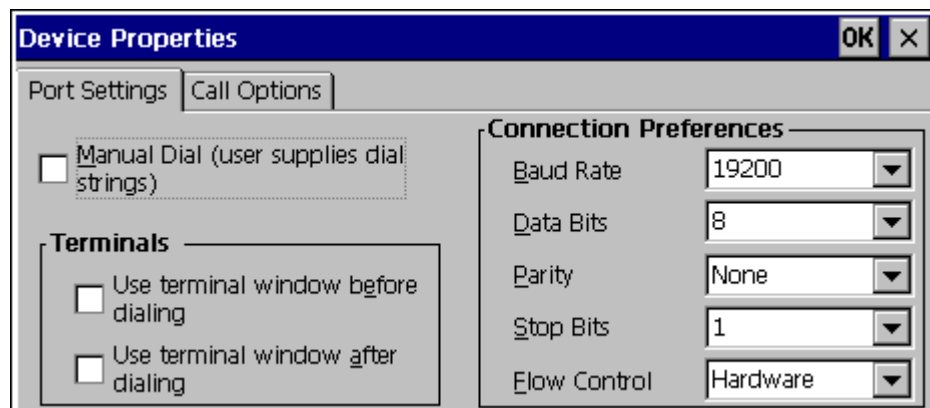
The **Device Properties** dialog box contains two properties sheets:

- **Port Settings**
- **Call Options**

The following sections discuss these properties sheets.

Port Settings

See Figure 12-2 to view the **Port Settings** properties sheet. It is the default of the **Device Properties** dialog box. The following table discusses the functions of this properties sheet.

Table 12-2   Port Settings Properties Sheet

Function	Description
Manual Dial	Click on this check box to set up for manual dialing.
Terminals	Use this group box to record terminal windowing information: • **Use Terminal Window Before Dialing** • **Use Terminal Window After Dialing**
Connection Preferences	Use this group box to set modem connection parameters.

Call Options

Click on the **Call Options** tab to invoke the **Call Options** properties sheet.

Figure 12-3   Call Options Properties Sheet
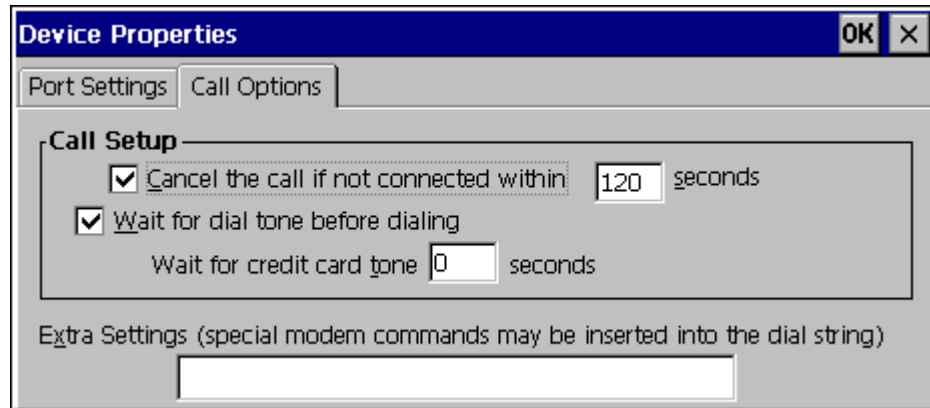
The following table discusses the functions of this properties sheet.

Table 12-3   Call Options Properties Sheet

Function	Description
Call Setup	Use this group box to configure the following call parameters:
	Cancel the Call if Not Connected Within
	1. Enter in this field the number of seconds to wait before a call is canceled. The default is **120** with the function enabled.
	2. Click the check box to enable the function.
	Wait for Dial Tone Before Dialing Click on the check box to enable the function. By default this function is enabled.
	Wait for Credit Card Tone Enter in the field the period (in seconds) of time to wait. The default is **0**.
Extra Settings	Use this field for special modem commands. See "Modem AT Commands" in Getting Help for more details.

13 Dial-Up TCP/IP Settings and Security

The following sections provide information about some of the elements of the **Dial-Up Configuration Wizard**. This chapter covers TCP/IP settings and dial-up security.

Using the TCP/IP Settings Dialog Box

Click on the **TCP/IP Settings** command button in the second dialog box of the **Dial-Up Configuration Wizard** to set TCP/IP dial-up settings. When this command button is pressed, the **TCP/IP Settings** dialog box displays. Figure 13-1 shows this dialog box.

Figure 13-1   TCP/IP Settings Dialog Box

The following table discusses the functions in this dialog box.

Table 13-1   TCP/IP Settings Dialog Box

Function	Description
Use Software Compression	Click on this check box to enable this function. By default, this function is activated and enabled.
Use IP Header Compression	Click on this check box to enable **Use IP Header Compression**. By default, this function is activated and enabled.
Use SLIP	Click on this check box to enable this function. SLIP is Serial Line Internet Protocol. By default, this function is not enabled.
Use Assigned IP Address	Click here to activate this text box. By default, the text entry box is not activated.
Use Server-Assigned IP Addresses	Click here to disable server-assigned addresses and to activate the text entry boxes for typing-in addresses. By default, the check box is checked and the text entry boxes are not activated.
Use Default Gateway on Remote Network	Click on this check box to enable this function. By default, the function is activated and enabled.

Using the Security Settings Dialog Box

Click on the **Security...** command button in the second dialog box of the **Dial-Up Configuration Wizard** to configure dial-up security. When this command button is pressed, the **Security Settings** dialog box displays. Figure 13-2 shows this dialog box.

Figure 13-2   Security Settings Dialog Box
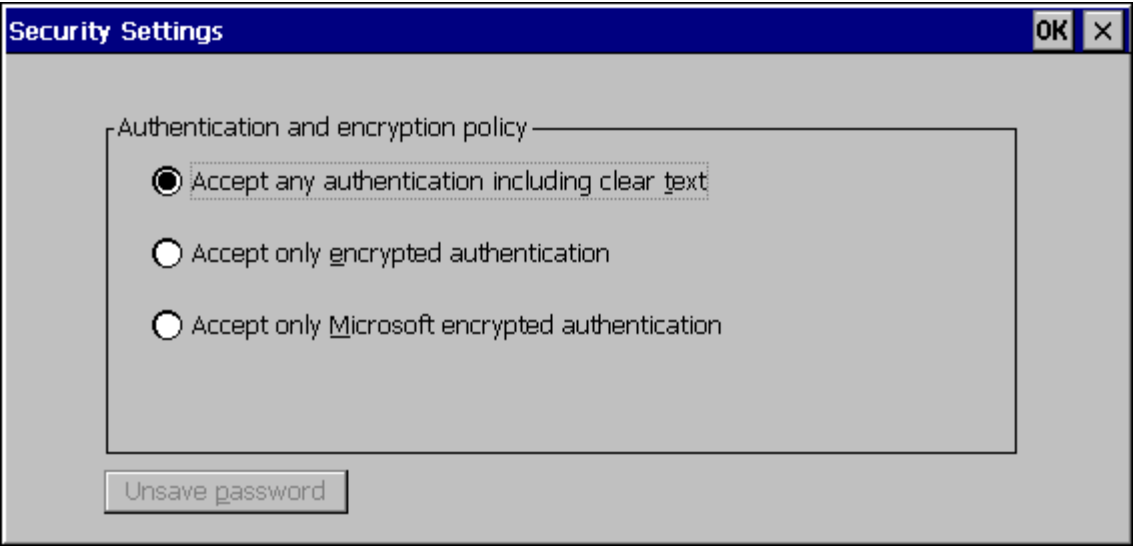
The following table discusses the functions in this dialog box.

Table 13-2   Security Settings Dialog Box

Function	Description
Accept Any Authentication Including Clear Text (default)	Click on this radio button to set your terminal to accept any authentication including clear text. Authentication determines whether a request originated from the correct user or application.
Accept Only Encrypted Authentication	Click on this radio button to set your terminal to accept only encrypted authentication. Encryption is a method of "hiding" data that is transmitted across a network.
Accept Only Microsoft Encrypted Authentication	Click on this radio button to set your terminal to accept only Microsoft encrypted authentication.

14 Dial-Up Scripts

Dial-up RAS (Remote Access Services) scripts are enabled from the **Dial-Up Configuration Wizard** (see "Dial-Up Connections"). RAS facilitates PPP communications between the terminal (based on Windows CE) and other non-Windows operating systems.

Using the Dial-Up Scripts Dialog Boxes

Dial-up scripts dialog boxes are accessed by checking the **Enable RAS script** box and pressing the **Script** command button in the second panel of the **Dial-Up Configuration Wizard**. These dialog boxes automate actions that otherwise would be performed in text mode after dialing.

The **Script Name** dialog box (Figure 14-1) enables you to create a script under a new name, edit an existing script, or delete an existing script. Press the **New** button to open the **New Script Name** dialog box (Figure 14-2). Type the script name and press **OK**. This opens the **RAS Script** dialog box. You may also open the **RAS Script** dialog box to edit an existing script by selecting the script and pressing **Edit**. Table 14-1 describes the **RAS Script** dialog box. To delete as script, select it and press **Delete**.

Figure 14-1   Script Name Dialog Box
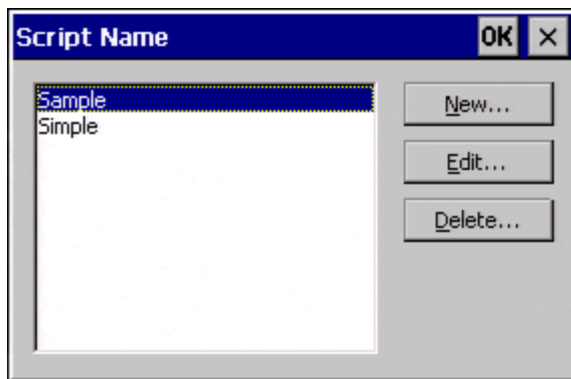
Figure 14-2   New Script Name Dialog Box
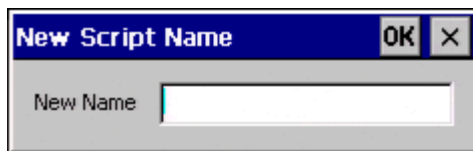
Figure 14-3   RAS Script Dialog Box
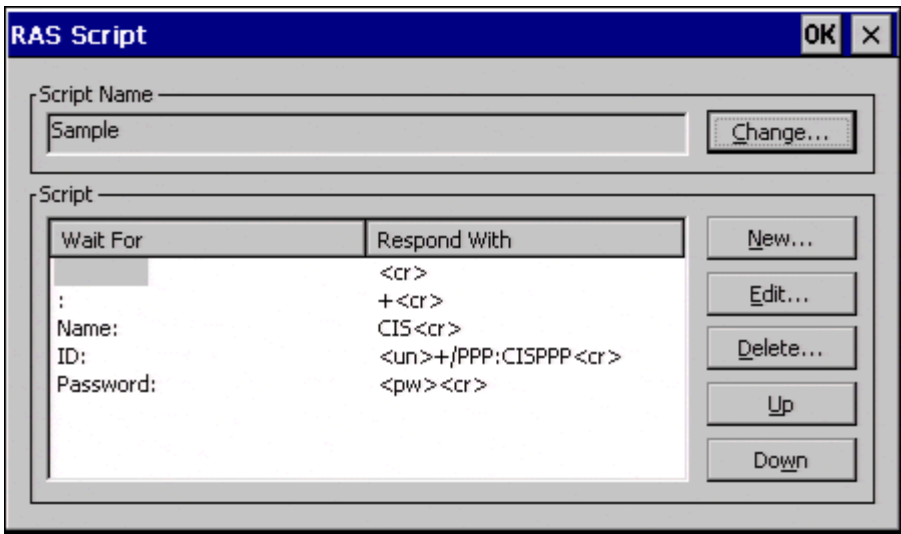
Table 14-1   RAS Script Dialog Box

Function	Description
Script Name text box and **Change** button	The text box displays the name of the currently selected script. You may change the selection by clicking on the **Change** button to open the **Script Name** dialog box. Select another script and click **OK**.
Script area:	
Text Box	Lists the script input/output strings:
	• **Wait For** - Displays strings received from the host.
	• **Respond With** - Displays what the terminal sends in response to the **Wait For** string.

Table 14-1   RAS Script Dialog Box, Continued

Function	Description
New and **Edit** buttons	**New** and **Edit** open the **Edit Script Line** dialog box (see Figure 14-4). Use this dialog box to create a new line in the script or edit an existing (selected) line. The specific scripts are unique to each target system.
Up, **Down, Delete** buttons	Use **Up** and **Down** to move a selected line in the script up or down in the list. To delete a line, select it and press **Delete**. You will be prompted to confirm deletion of the line.

Figure 14-4   Edit Script Line Dialog Box
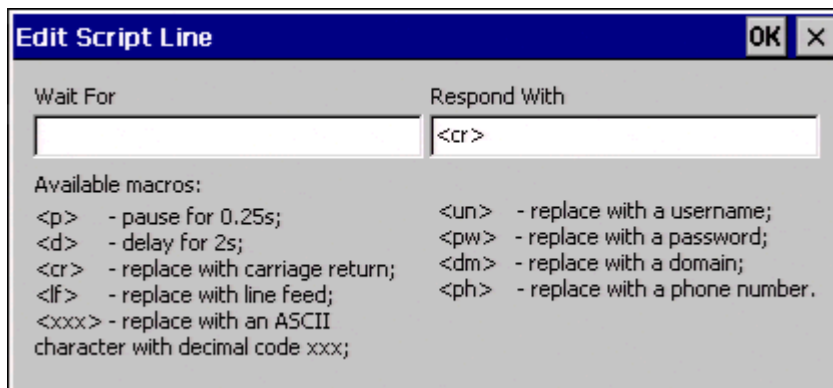
15 RDP Connections

Use the **WTS Connection Wizard** to configure an RDP connection. RDP connects to a server running Microsoft WTS (Windows Terminal Server).

Using the WTS Connection Wizard

When the **New Connection** dialog box is open (see "Creating New Connections"):

1. Use the drop-down scroll list to select **Microsoft Remote Desktop Client**.

2. Click on **OK**.

Following are the four dialog boxes that display in succession during the configuration process. When you are finished with the wizard, the new connection will be added to the **Connection Name** list in the **Connection Manager**. Figure 15-1 shows the first dialog box of this wizard.

Figure 15-1   WTS Connection Wizard 1
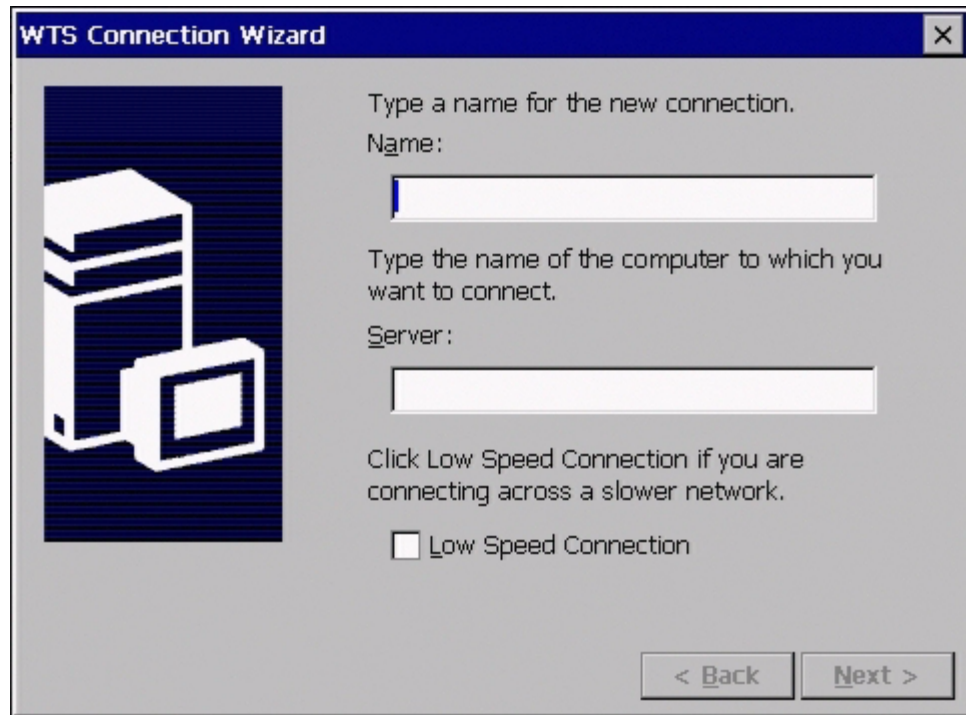
To use the first dialog box:

1. Enter a name for your dial-up connection in **Name**.

2. Enter the name or IP address of the server in **Server**.

3. Check the **Low Speed Connection** check box if appropriate.

4. Click on **Next**.

Figure 15-2   WTS Connection Wizard 2

To use the second dialog box:

1. Check the **Automatic Logon** check box if appropriate.

2. Enter a user name, password, and a domain to complete the information.

3. Click on **Next**.

Figure 15-3   WTS Connection Wizard 3
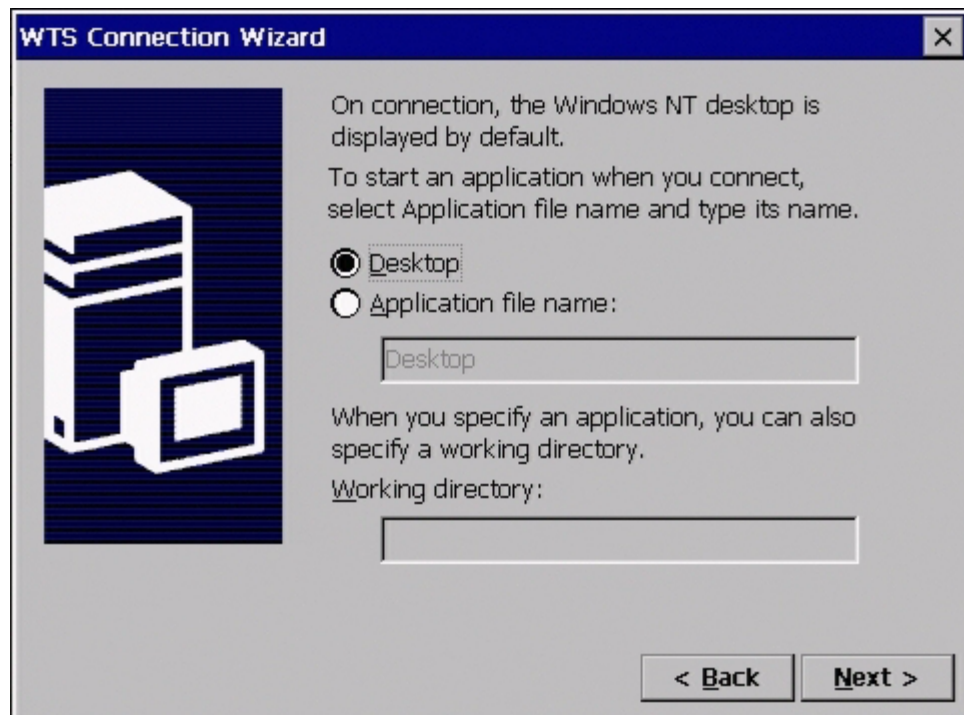
To use the third dialog box in the wizard:

1. Click on either the **Desktop** or **Application File Name** radio buttons.

2. If you clicked on **Desktop**, click on **Next**.

3. If you clicked on **Application File Name**:

    a. Enter the name of the application.

    b. Enter the name of the directory where it resides.

    c. Click on **Next**.

Figure 15-4   WTS Connection Wizard 4

To use the fourth dialog box, click on **Finish**. The **Connection Manager** displays, listing your new RDP connection.

16 Terminal Emulation Connections

Using the TE Client Connection Wizard

When the **New Connection** dialog box is open (see "Creating New Connections"):

1. Use the drop-down scroll list to select **Terminal Emulation**.

2. Click on **OK**.

Following are the three dialog boxes of this wizard. When you are finished configuring a connection, the new connection will be added to the **Connection Name** list in the **Connection Manager**. Figure 16-1 shows the first dialog box of this wizard.

Figure 16-1   TE Client Connection Wizard - Connection Information

To use the **Connection Information** dialog box:

1. Enter the connection name in **Connection Name** text box.

2. Select the emulation type in the **Emulation** scroll list.

3. Select the terminal type from the **VT TerminalID** scroll list. Table 16-1 describes the available functions in the **VT TerminalID** scroll list.

4. Click on **Next** to continue to the **Host Information** dialog box (Figure 16-3).

✅ **Note**

Depending on the emulation chosen, the appearance of the **TE Client Connection Wizard -Connection Information** dialog box changes, to provide for selecting appropriate parameters for that emulation. These are described in Table 16-1.

Table 16-1   Terminal Emulation and Terminal Type

Terminal Emulation	Terminal Type
Select **Emulation**: **VT52, VT100, VT400 7-Bit** (default), or **VT400 8-Bit**	Then select from **VT TerminalID**: **vt100**, **vt101**, **vt102**, **vt125**, **vt220**, **vt240**, **vt320**, **vt340**, **vt420** (default), **vt131**, or **vt132**
Select **Emulation**: **ANSI BBS**, **SCO Console**, **WY50**, **WY50+**, **TVI910**, **TVI920**, **TVI925**, **TVI955**, **ADDS A2**, **HZ1500**, or **WY60**	The function is deactivated.
Select **Emulation**: **IBM3151**	Then select from **IBM3151 Model**: **11** (default), **31**
Select **Emulation**: **IBM3270**	1. Then select from **IBM 3270 Model**: **3278-2, 3278-3, 3278-4, 3278-5, 3278-2-E** (default), **3278-3-E**, **3278-4-E**, **3278-5-E**, **3279-2**, **3279-3**, **3279-4**, **3279-5**, or **3287-1** 2. Check the **Right Ctrl Acts as Enter Key** or the **Left Ctrl Acts as Reset Key** check boxes if you want these functions enabled for 3270 emulation.
Select **Emulation**: **IBM5250**	1. Select from **IBM 5250 Model**: **5291-1**, **5292-2**, **5251-11**, **3179-2** (default), **3196-A1**, **3180-2**, **3477-FC**, **3477-FG**, **3486-BA**, **3487-HA**, **3487-HC,** or **3812-1** 2. Check the **IBM5250 Monochrome**, **Left Ctrl Acts as Reset Key**, **Right Ctrl Acts as Enter Key**, or the **Carriage Return acts as Enter Key** check boxes if you want these functions enabled for 5250 emulation.

Table 16-1 Terminal Emulation and Terminal Type, Continued

Terminal Emulation	Terminal Type
Select **Emulation**: **HP70092**	Then select from **HP Model: 2392A, 70092** (default), **2622A**
International Settings	Opens the **International Settings** dialog box (see Figure 16-2). The particular controls and selections that appear in this dialog box depends on the terminal emulation selected. Make keyboard, character set, and other selections in this dialog box as applicable.

Figure 16-2 International Settings Dialog Box
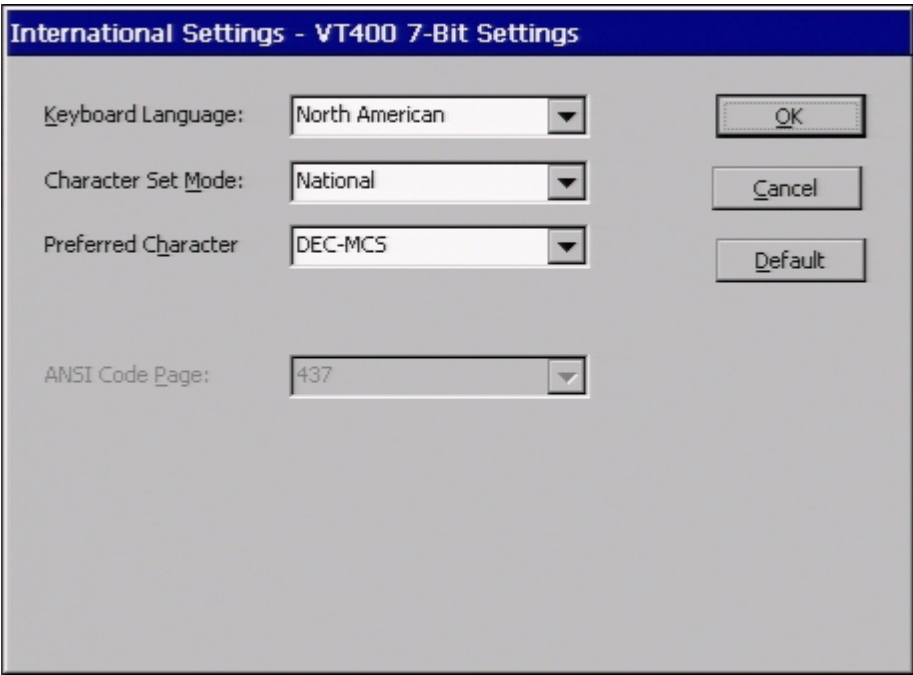
Figure 16-3   TE Client Connection Wizard - Host Information

To use the **Host Information** dialog box:

1. Click on **TCP/IP, Modem,** or **Serial**:

2. If you clicked on **TCP/IP**:

    a. Enter the host name or IP address in **Host Name**.

    b. Use the **Advanced** command button if appropriate. (See "Using the TCP/IP Telnet Configuration Dialog Box" for information about the **Advanced** command button).

    c. Click on **Next**. The **Automate Login Process** dialog box displays. See Figure 16-4 and proceed with these instructions.

3. If you clicked on **Modem**:

    a. Select a configuration from **Configuration Name**.

    b. Use the **Configure** command button if appropriate. (See "Using the Modem Settings Dialog Box" for information about the **Configure** command button).

     c. Click on **Next**. The **Automate Login Process** dialog box displays. See Figure 16-4 and proceed with these instructions.

4. If you clicked on **Serial**:

     a. Make a selection from **Connect To**.

     b. Use the **Configure** command button if appropriate. (See "Using the Configuration of Serial Cable on Com1 (or Com2) Dialog Box" for information about the **Configure** command button).

     c. Click on **Next**. The **Automate Login Process** dialog box displays. See Figure 16-4 and proceed with these instructions.

Figure 16-4   TE Client Connection Wizard - Automate Login Process
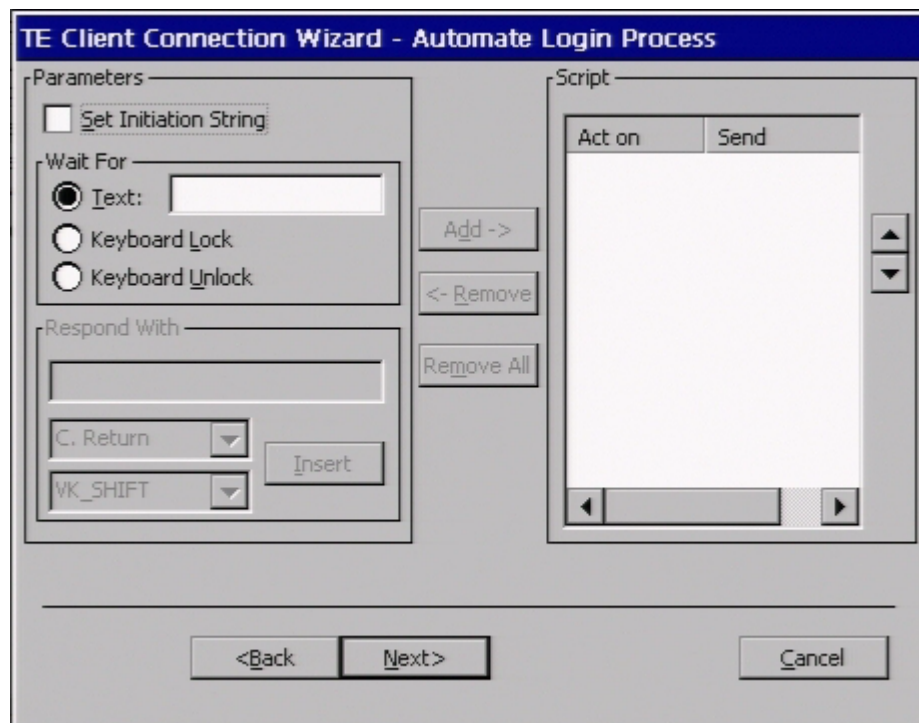
To use the **Automate Login Process** dialog box:

1. Fill in the **Parameters** group box as appropriate using the following functions:

     a. Set Initiation String - Set the scripts initiation string.

     b. Wait For - Act on an selected event in the **Act On** list such as **login**.

    c. **Respond With -** The scroll list receives input from the **Insert** command button and the **Insert** command button inserts an item from the scroll list.

2. Use the **Add** and **Remove** command buttons to add or remove lines from the **Script** scroll list.

3. Use the **Remove All** command button to remove all the scripts from the **Script** scroll list.

4. Select a script from the **Script** scroll list as appropriate.

5. Click on **Next** to open the **Printer Port Settings** dialog box.

Figure 16-5   TE Client Connection Wizard - Printer Port Settings

To use the **Printer Port Settings** dialog box:

1. Check the **Use Network Printer** box if you want to print from a printer in your network. Checking this box enables **LPD Hostname** text box and the **FormFeed Terminator**, **Translate National Characters**, and **Auto Line Feed** check boxes. Enter the IP address or DNS name of the LPD host, and make check box selections appropriate to the application and printer used.

2. Select a printer port from the **Printer Port** list:

Parallel Cable on LPT1: (default)
Serial Cable on COM1:
Serial Cable on COM2:

Selecting either of the serial printer ports enables the **Configure** command button, which opens the **Configuration of COM1 (or COM2)** dialog box. For details about the available selections in this dialog box see "Using the Configuration of Serial Cable on Com1 (or Com2) Dialog Box" .

3. Click on **Next**. This will open the **GUI Overrides** dialog box.

Figure 16-6   TE Client Connection Wizard - GUI Overrides
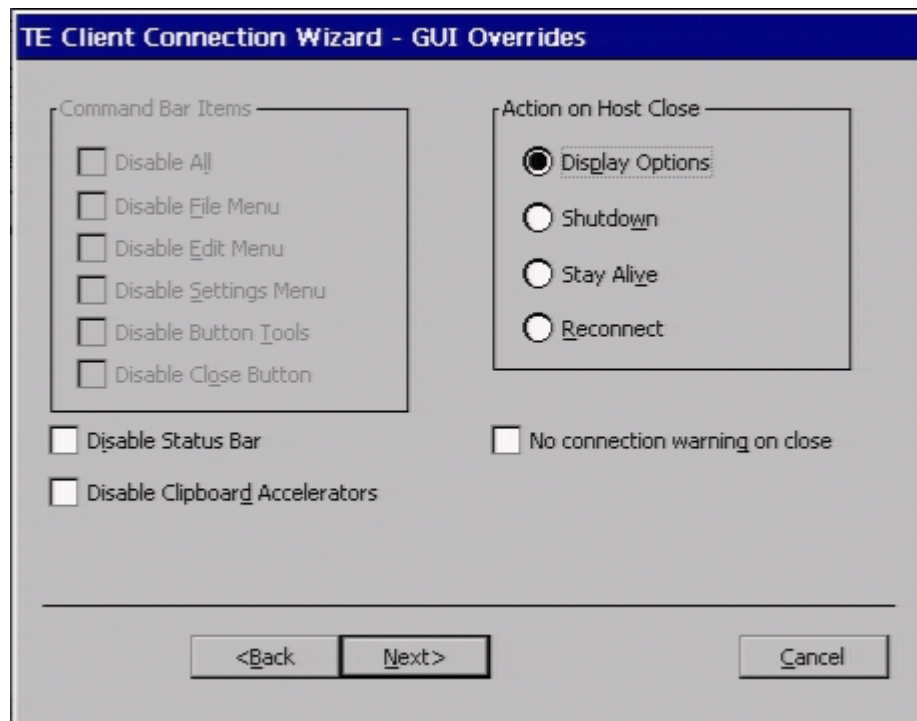
To use the **GUI Overrides** dialog box:

1. Select the appropriate functions from **Command Bar Items** list box. Command bar items are the menus on the top bar of the terminal emulation user interface.

✔ **Note**

> After choosing Command Bar Items as an
> administrator, the terminal must be logged-in as a user
> to see the effect on the terminal session. Terminal
> security must be enabled.

2. Select the appropriate function from **Action on Host Close**. These functions are actions that will take place when the terminal emulation session is closed.

3. Click on the **Disable Status Bar** or **No Connection Warning on Close** check boxes as appropriate. **Disable Status Bar** deactivates the status bar in a terminal emulation session and **No Connection Warning on Close** deactivates any kind of warning before a session closes.

Click on **Finish**. The **Connection Manager** displays, listing your new terminal emulation connection.

17 TCP/IP Telnet Configuration

> ☑ **Note**
>
> The information in this chapter applies to the terminal emulation connection only.

Using the TCP/IP Telnet Configuration Dialog Box

The **Advanced** command button on the **TE Client Connection Wizard - Host Information** dialog box invokes the **TCP/IP Telnet Configuration** dialog box. Figure 17-1 shows this dialog box.

Figure 17-1   TCP/IP Telnet Configuration Dialog Box

The following table discusses the functions of a Telnet connection.

Table 17-1   TCP/IP Telnet Configuration

Function	Description
Host Port Number	Enter the Telnet host port number. The default is **23**.
Local Port Number	Implemented to allow connection to Misys hosts. This allows the host to communicate back to the emulator on a different port than the emulator uses to talk to the host. The default is **0**.
Telnet Name	Enter the Telnet virtual terminal name. The default depends on emulation (VT400, 7-bit, default is **vt420)**.
Suppress	Use the functions of this group box as needed (controls in this area become active depending on the type of emulation selected): • **Echo** (default) • 3270 Regime • TN3270E • TN5250E
Force Negotiation	Use the **Binary** and **EOR** drop-down scroll lists to configure negotiation parameters. The default for **Binary** is **No** and the default for **EOR** is **No**.
Break Settings	Use the **TM with Break** and **CR with Break** check boxes to configure break settings.

Table 17-1   TCP/IP Telnet Configuration, Continued

Function	Description
	The following image shows the **TN3270 Options** dialog box, displayed when the **3270 Options** command button is pressed.
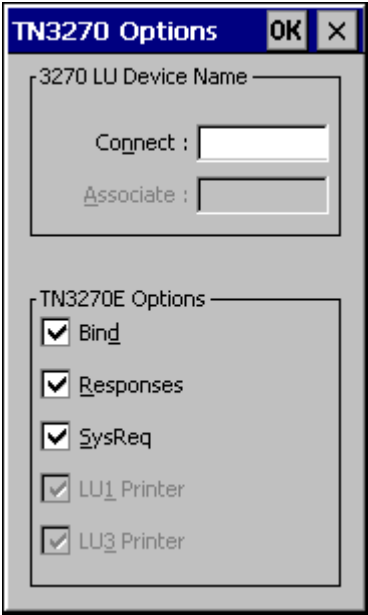
Use this dialog box to set up 3270 options:

3270 LU Device Name - This group box is used to identify the LU (Logical Unit).

TN3270E Options - This group box is used to set TN3270E options. The options are:

Bind - BIND (Berkeley Internet Name Domain) DNS server

Responses - System response

SysReq - System requests

> ✔ **Note**
>
> **Associate**, **LU1 Printer**, and **LU3 Printer** are deactivated.

Table 17-1   TCP/IP Telnet Configuration, Continued

Function	Description
	• TN5250 Options The following dialog box shows the **TN5250 Options** dialog box, displayed when the **5250 Options** command button is pressed. Use this dialog box to set up 5250 options. The options are: **Device Name** - Name of the device assigned to a Telnet session. **User**, **Password**, **Library**, and **Menu** - Initial entries on a standard startup screen. **Program** - Name of the initial program. ✔ **Note** All entries are 10 characters or less.

Using the Modem Settings Dialog Box

The **Configure** command button invokes the **Modem Settings** dialog box.
Figure 17-2 shows this dialog box.

Figure 17-2   Modem Settings DIalog Box

The following table discusses the available modem settings.

Table 17-2   Modem Settings Dialog Box

Function	Description
Configuration Name	Enter the name of your configuration.
Select a Modem	Select a modem from the drop-down scroll list.
Configure	Opens the **Device Properties** dialog box. See "Using the Device Properties Dialog Box" for information about this function.
Area Code	Enter the area code in this text box.
Telephone Number	Enter the telephone number in this text box.
Country Code	Enter the country code in this text box.
Dialing From:	This field automatically lists where you are calling from.
Dialing Properties	SSee "Dial-Up Dialing Properties and Configuration" for information about this function.
Force Long Distance	Check this box to force long distance calling.
Force Local	Check this box to force local calling.

Using the Configuration of Serial Cable on Com1 (or Com2) Dialog Box

This dialog box opens when the **Configure** command button is pressed for a serial connection type selection. Figure 17-3 shows this dialog box.

Figure 17-3 Configuration of Serial Cable on Com1 (or Com2) Dialog Box
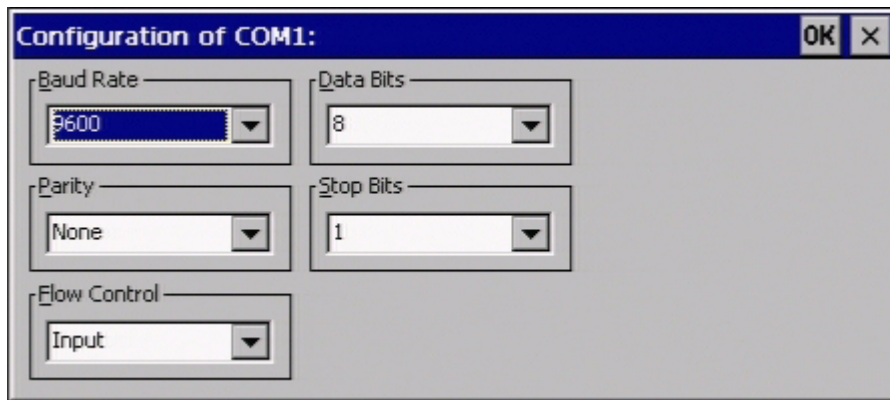
The following table discusses this dialog box.

Table 17-3   Configuration of Serial Cable on Com1 (or Com2) Dialog Box

Function	Description
Configuration of a Serial Cable on Com1 or Com2	Use these functions to configure a serial cable: • **Baud Rate** • **Parity** • **Flow Control** • **Data Bits** • **Stop Bits** • **Transmit Limit** Each is presented as a drop-down scroll list. Click on the upper-right down arrow to display the list and select a value. The defaults are listed (consecutive to the **Function** list to the left) as follows: • **9600** • **None** • **Input** • **8** • **1** • **Unlimited**
Local Echo	Check this check box if you want transmitted characters to appear on the dialup terminal window. Not needed if the destination machine has remote echo turned on.

18 Internet Explorer Connections

> ☑ **Note**
>
> Internet Explorer requires that a minimum of 16 MB of flash memory and 32 MB of RAM is installed on the terminal. The installed memory is listed on the **Terminal Properties** window **SysInfo** and **General** tabs.

When the **New Connection** dialog box is open (see "Creating New Connections"):

1. Use the drop-down scroll list to select **Internet Explorer**.

2. Click on **OK**.

This opens the **Internet Explorer Setup** dialog box (Figure 18-1).

3. Type a **Title** for the connection.

4. Enter the URLs of your choice for the **Start** and **Search** pages.

5. If this server is to be included in failover, check the **Allow to ping Start Site** check box.

    > ☑ **Note**
    >
    > To help decide whether you should check this box, refer to the chapter on "Failover" in this section.

6. Click on **OK**.

Figure 18-1   Internet Explorer Setup Dialog Box
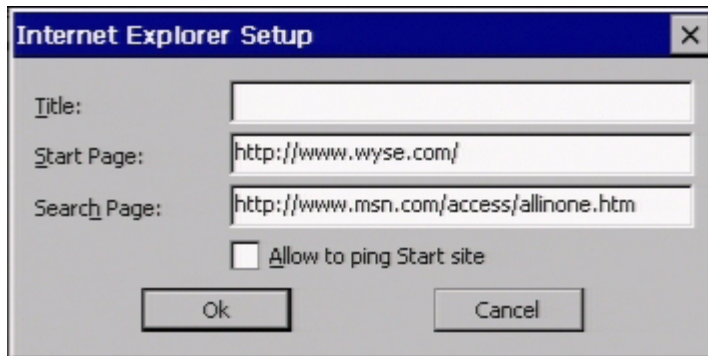
> ✔ **Note**
>
> If the connection is to an NFuse server that provides
> ICA links within a Web page to allow ICA sessions to
> be launched from within a browser window, refer to
> "NFuse Server Configuration Requirements" for
> information concerning limitations on the NFuse server
> application setup for use with Model T10x0 series
> terminals.

19 Editing ICA Connections

The **Connection Manager** lets you edit individual ICA connection parameters. It is done through the **Edit Connection Details** dialog box. The following figure shows this dialog box.

Figure 19-1   Edit Connection Details Dialog Box
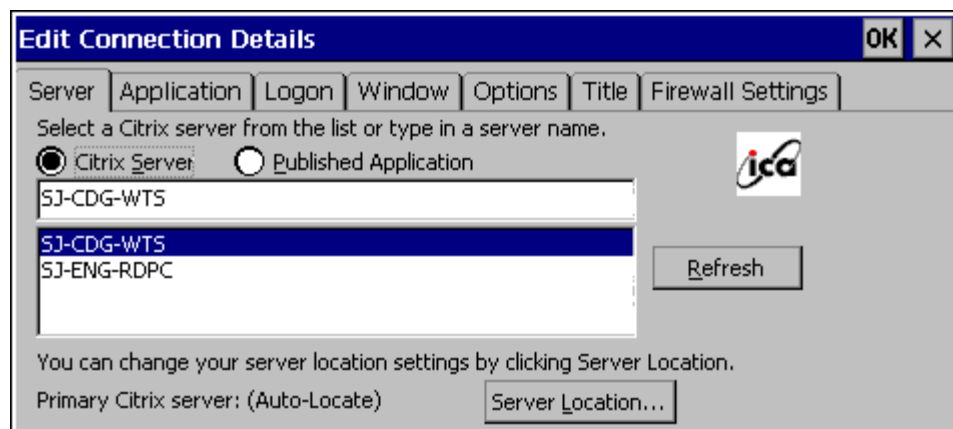
Using the Edit Connection Details Dialog Box

The **Edit Connection Properties** dialog box consists of seven properties sheets. Use any or all of these properties sheets to edit connection parameters. To invoke the dialog box:

1. Click on the **Configure** tab in the **Connection Manager** dialog box.

2. Click to select an ICA connection from the Connections Name list.

3. Click on the **Edit** command button on the **Configure** properties sheet.

Using the Server Properties Sheet

The **Server** properties sheet is displayed by default for the dialog box. Table 19-1 describes the functions of the **Server** properties sheet.

Table 19-1   Server Properties Sheet

Function	Description

Select a Citrix Server From the List or Type in a server Name	Click on:
	• **Citrix Server**
	  Enable this radio button to connect to a Citrix server.
	• **Published Application**
	  Enable this radio button to connect directly to an application.

Server Location	Click on this command button to invoke the **Server Location Dialog Box**. **Server Group** Select from a scroll list: • **Primary** • **Backup 1** • **Backup 2** **Primary** is the default. **Add** Click on this command button to add a server to the list.

Table 19-1   Server Properties Sheet, Continued

Function	Description
	Delete Click on this command button to delete a server from the list: **1.** Select a server from the list. **2.** Click on the **Delete** command button.
	Move Up Click on this command button to move a server up the list: **1.** Select a server to move up. **2.** Click on the **Move Up** command button.
	Move Down Click on this command button to move a server down the list: **1.** Select a server to move down. **2.** Click on the **Move Down** command button.
	Address Lists the servers.
	Default List Lists the default servers.
	Network Protocol Lists the network protocol used by the server.

Using the Application Properties Sheet

The **Application** properties sheet is shown in Figure 19-2.

Figure 19-2   Application Properties Sheet
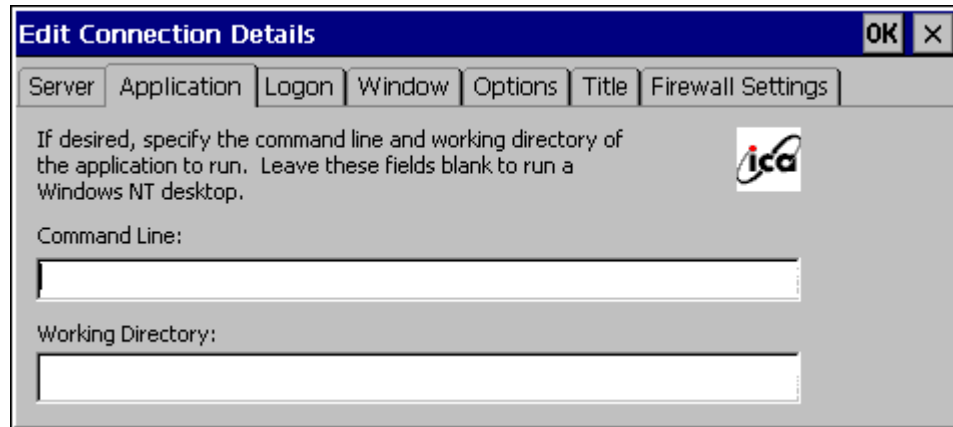
Invoke the properties sheet by clicking on the **Application** tab. Table 19-2 describes the functions of the properties sheet.

Table 19-2   Application Properties Sheet

Function	Description
Command Line	Enter the command line used to invoke the application.
Working Directory	Enter the directory where the application is stored.

Using the Logon Properties Sheet

The **Logon** properties sheet is shown in Figure 19-3.

Figure 19-3   Logon Properties Sheet
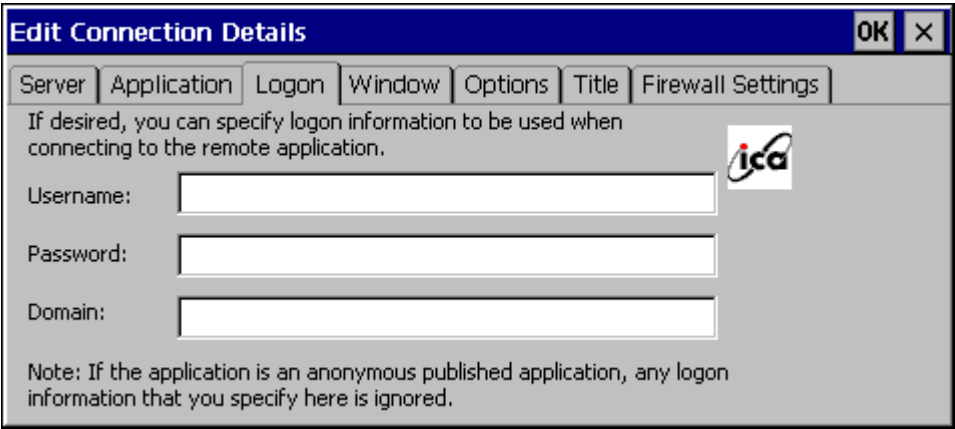
Invoke the properties sheet by clicking on the **Logon** tab. Table 19-3 describes the functions of the **Logon** properties sheet.

Table 19-3   Logon Properties Sheet

Function	Description
Username	Enter the user name used to log into the server.
Password	Enter the password used to log into the server.
Domain	Enter the domain name of the server.

Using the Window Properties Sheet

The **Window** properties sheet is shown in the following figure.

Figure 19-4   Window Properties Sheet
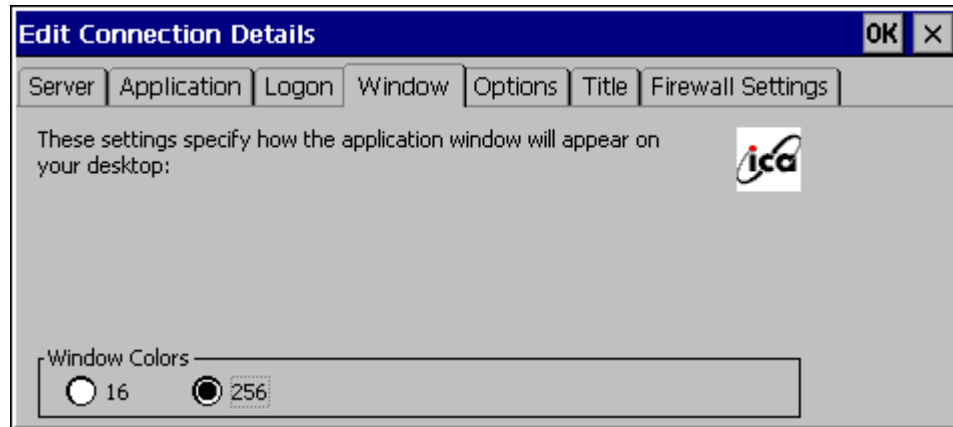
Invoke the properties sheet by clicking on the **Window** tab. Table 19-4 describes the functions of the **Window** properties sheet.

Table 19-4   Window Properties Sheet

Function	Description
Window Colors	Two or three radio buttons are displayed. If the terminal **Color Palette** (using the **Display** properties sheet in the **Terminal Properties** dialog box) is **256 colors**, radio buttons for **16** or **256** colors are displayed. If **65536** is selected in the **Color Palette**, after restarting the terminal an additional radio button, **Thousands**, is displayed.
	✔ **Note**
	The ICA server must be capable of supporting 16-bit color for the **Thousands** selection to work. If not, the terminal will display only 256 (8-bit) colors when **Thousands** is selected.
	When using a PPP connection, 16 color mode may provide faster performance. If the window options specified exceed the capabilities of the client hardware, the maximum size and color depth supported by the CE operating system are used.

Using the Options Properties Sheet

The **Options** properties sheet is shown in Figure 19-5.

Figure 19-5   Options Properties Sheet
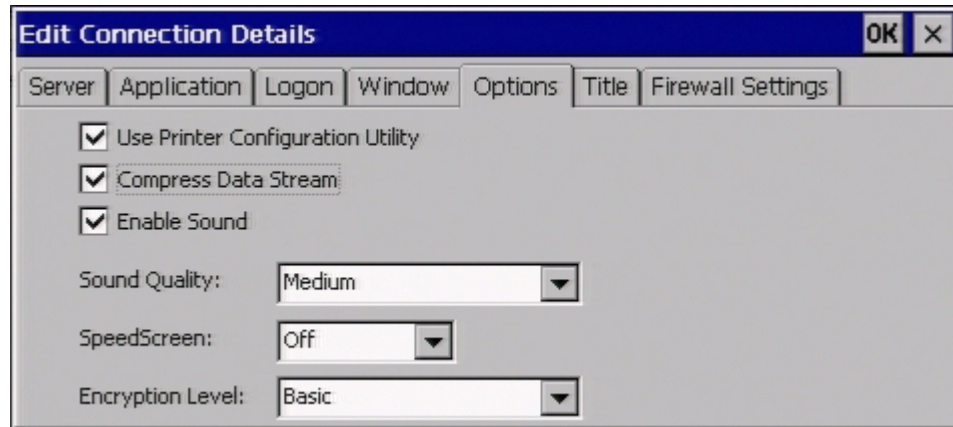
Invoke the properties sheet by clicking on the **Options** tab. Table 19-5 describes the functions of the **Options** properties sheet.

Table 19-5   Options Properties Sheet

Function	Description
Use Printer Configuration Utility	Check this box (default) to allow creation of a new printer in the ICA Client Printer dialog box on the ICA server. Uncheck to use Windows to add a printer.
Compress Data Stream	Check this check box to enable compressed data streaming. By default the box is checked.
Enable Sound	Check this check box to enable sound. By default the box is checked.
Sound Quality	Select from: • **High** • **Medium** (default) • **Low**

Table 19-5   Options Properties Sheet, Continued

Function	Description
SpeedScreen	Drop-down list box. Select from: • **Off** (default) • **On** • **Auto** SpeedScreen is a combination of technologies implemented in ICA that decreases bandwidth consumption and total packets transmitted, resulting in reduced latency and consistent performance regardless of the network connection. SpeedScreen is not available when connecting to MetaFrame for UNIX 1.0 and 1.1 servers.
Encryption Level	Select from: • **Basic** (8 bit) (default) • **40** (40 bit) • **56** (56) • **128** (128) • **128-bit Logon**

Using the Title Properties Sheet

The **Title** properties sheet is shown in Figure 19-6.

Figure 19-6   Title Properties Sheet
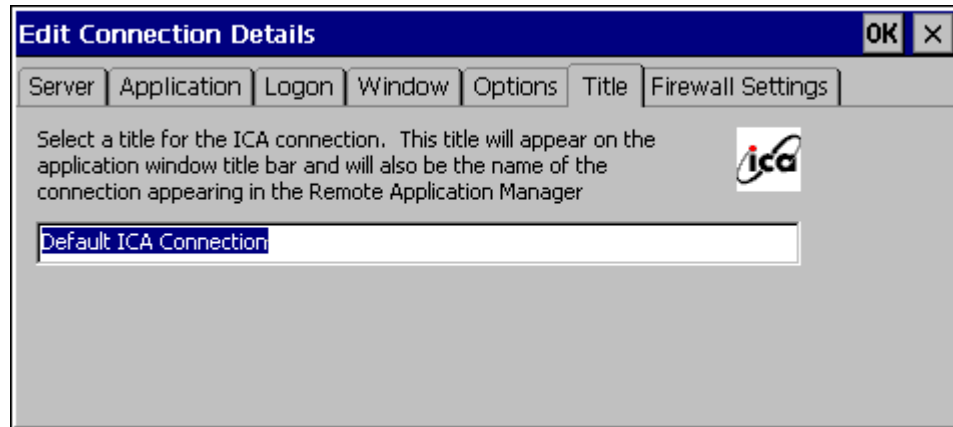
This properties sheet contains only one function. Enter the title of your ICA connection in the text box on the sheet.

Using the Firewall Settings Properties Sheet

The **Firewall Settings** properties sheet is shown in Figure 19-7.

Figure 19-7   Firewall Settings Properties Sheet
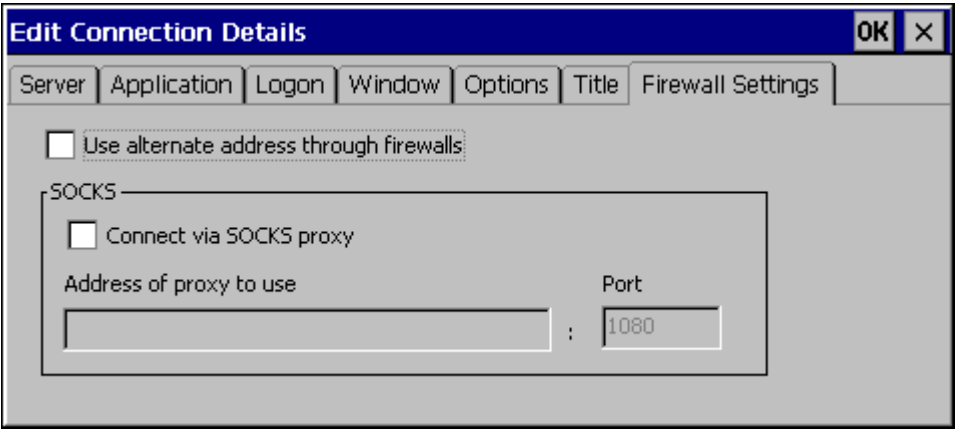
Invoke this properties sheet by clicking on the **Firewall Settings** tab. Table 19-6 describes the functions of the properties sheet.

Table 19-6   Firewall Settings Properties Sheet

Function	Description
Use Alternate Address Through Firewalls	Click on this check box to enable the function. By default the box is unchecked.
SOCKS	SOCKS (Socket Secure) is networking proxy protocol. It enables hosts on one side of a SOCKS server to gain access to hosts on the other side of the SOCKS server. The SOCKS server authenticates and authorizes the requests, establishes a proxy connection, and relays data.
	Connect Via SOCKS Proxy Click on this check box to enable connection to a SOCKS proxy server. By default the check box is unchecked.

Table 19-6   Firewall Settings Properties Sheet, Continued

Function	Description
	Address of Proxy to Use Enter in this text box the IP address of the SOCKS proxy server. Activate this box by clicking on **Connect Via SOCKS Proxy**. By default this box is deactivated. **Port** Enter the port number to connect to. Activate this box by clicking on **Connect Via SOCKS Proxy**. By default this box is deactivated.

20 Editing RDP, Dial-Up, and Terminal Emulation Connections

Dial-Up and Terminal Emulation Connections

Edit dial-up and terminal emulation connections through the **Connection Manager:**

1. Click on the **Configure** tab.

2. Click to select a connection from the **Connection Name** list.

3. Click on the **Edit** command button.

To edit a dial-up connection you invoke the **Dial-Up Configuration Wizard**. See "Dial-Up Connections" for detailed information about using this wizard. To edit terminal emulation you invoke the **TE Client Connection Properties** dialog box. See "Terminal Emulation Connections" for detailed information.

RDP Connections

The **Connection Manager** lets you edit individual RDP connection parameters. It is done through the **Edit Connection** dialog box. The following figure shows the **Edit Connection** dialog box.

Figure 20-1   Edit Connection Dialog Box
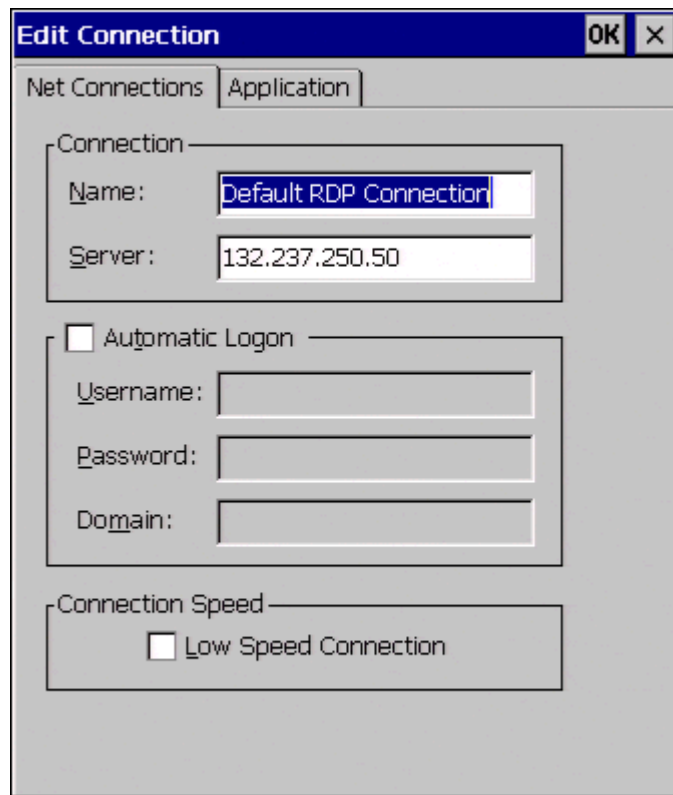
Using the Edit Connection Dialog Box

The **Edit Connection** dialog box includes two properties sheets. Depending on your connections configuration, you use one of these properties sheets to edit connection parameters. To invoke the dialog box:

1. Click on the **Configure** tab in the **Connection Manager** dialog box

1. Click on an RDP connection in the Connections Name list.

2. Click on the **Edit** command button on the **Configure** properties sheet.

Using the Net Connections Properties Sheet

The **Net Connections** properties sheet is displayed by default for the **Edit Connection** dialog box. Use this properties sheet to reconfigure the network portion of the connection.

Table 20-1 describes the functions of the **Net Connections** properties sheet.

Table 20-1   Net Connections Properties Sheet

Function	Description
Connection	Select a connection from the **Connection Name** list in the **Terminal Connection Manager**. Use the following functions to change the connection's network parameters: **Name** Enter the name of the connection in this field. When **OK** is selected, your changes will be saved and **Name** will replace what was selected. **Server** Enter the address of the server in this field.
Automatic Logon	Click on this check box to enable automatic logon for your terminal. Enabling this function enables the **Username**, **Password**, and **Domain** fields: **Username** Enter your user name. **Password** Enter your password. **Domain** Enter your domain.
Connection Speed	**Low Speed Connection** Click on this to enable low-speed connection. This function is used when connecting with a modem.

Using the Application Properties Sheet

Invoke the **Application** properties sheet by clicking on the **Application** tab in the **Edit Connection** dialog box. Use this properties sheet to reconfigure the applications-related portion of the connection. Figure 20-2 shows this sheet.

Figure 20-2   Application Properties Sheet
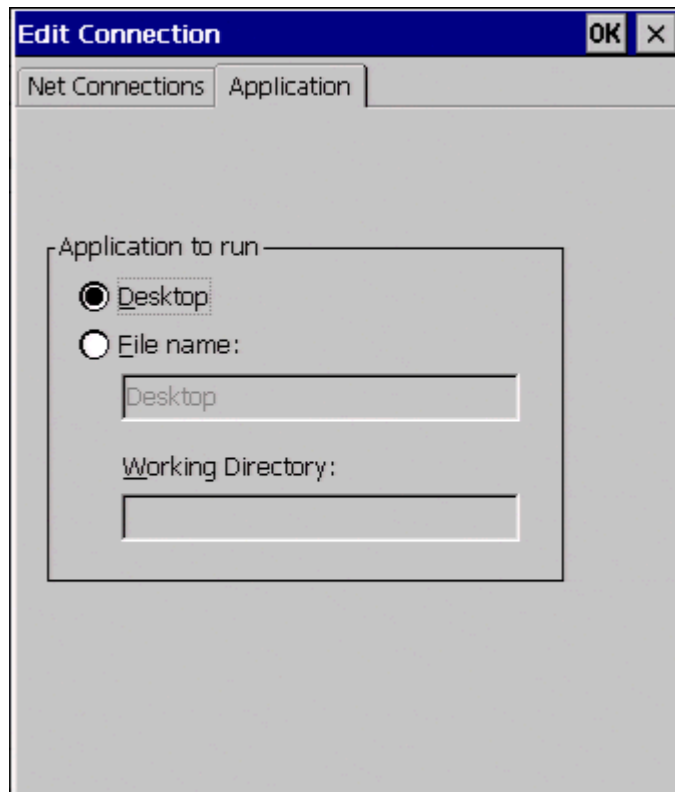
The following table describes the functions of the **Application** properties sheet.

Table 20-2   Application Properties Sheet

Function	Description
Application to Run	Select a connection from the **Connection Name** list in the **Terminal Connection Manager**. Use the following functions to specify an application to run when the connection is made. **Desktop** Click on this radio button to open the desktop when the connection is made. When selected, the **File Name** and **Working Directory** text boxes are disabled. **File Name** Click on this radio button and in the associated text box enter the full path name of an application that will run. **Working Directory** Enter the path to the working directory that the application will use. ☑ **Note** The terminal will not create a new directory if the entered working directory does not exist.

☑ **Note**

Desktop and **File Name** are mutually exclusive. **File Name** must be selected in order to use the **File Name** and **Working Directory** fields.

External Devices

21 Devices Properties

Figure 21-1 shows the **Devices** properties sheets for the SE models and LE models, respectively.

To open the **Devices** properties sheet,

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab in the **Terminal Properties** dialog box.

Devices Properties Sheet

Table 21-1 describes the functions of this properties sheet.

Figure 21-1 Devices Properties Sheet
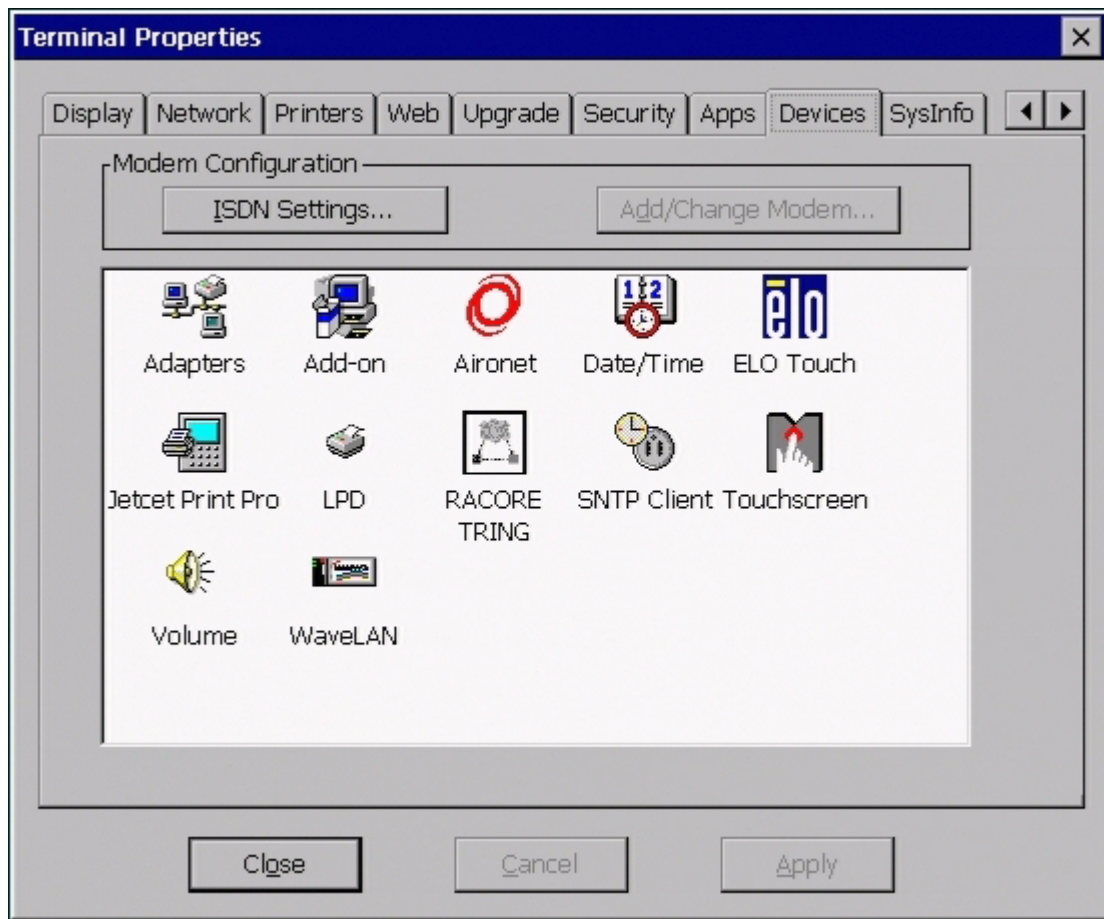
Table 21-1   Devices Properties Sheet

Function	Description
ISDN Settings	Click on this command button to invoke the **ISDN Settings** dialog box. For more detailed information see "PC Card Adapters for Modems" in External Devices. By default this command button is activated.
Add/Change Modem	Click on this command button to invoke the **Add or Change Modem** dialog box. This command button will only be activated if a PC card modem is inserted in to the terminal's PC card slot. For detailed information see "PC Card Adapters for Modems" in External Devices.
Adapters	Click on this icon to invoke the **Adapters Configuration** dialog box. For detailed information see "Managing Network Adapters" in External Devices.
Add-on	Click on this icon to invoke the **Add-on** dialog box. For detailed information see "Add-on" in External Devices.
Aironet	Click on this icon to invoke the **Aironet Wireless Lan Adapter Setup** dialog box. For detailed information see "Aironet Wireless Land Adapter" in External Devices.
Date/Time	Click on this icon to invoke the **Date/Time Properties** dialog box. For detailed information see "Date/Time" in External Devices.
ELO Touch	Click on this icon to invoke the **ELO Touchscreen** dialog box. For detailed information see "Touchscreens" in External Devices.
JETCET PRINT Pro	Click on this icon to invoke the **JETCET PRINT Professional** dialog box. For detailed information see "JETCET PRINT" in External Devices.
LPD	Click on this icon to invoke the **LPD Config** dialog box. For detailed information see "Local Printers" in External Devices.

Table 21-1   Devices Properties Sheet, Continued

Function	Description
RACORE-TR	Click on this icon to invoke the **RACORE - Token Ring Adapter Settings** dialog box. For detailed information see "PC Card Adapters for Token Ring Networks" in External Devices.
SNTP Client	Click on this icon to invoke the **SNTP Client** dialog box. For detailed information see "SNTP Client" in External Devices.
Touchscreen	Click on this icon to invoke the **MicroTouch Touchscreen Properties** dialog box. For detailed information see "Touchscreens" in External Devices.
Volume	Click on this icon to invoke the **Volume Properties** sheet. For detailed information see "Volume Properties Sheet" in External Devices.
WaveLAN	Click on this icon to invoke the **WaveLAN/IEEE Settings** dialog box. For detailed information see "PC Card Adapters for Wireless Networks" in External Devices.

22 Managing Network Adapters

An adapter is a device that physically connects a terminal to a network. The **Adapters Configuration** dialog box gives you the ability to configure the adapters on a terminal. Figure 22-1 shows the dialog box.

Figure 22-1   Adapters Configuration Dialog Box
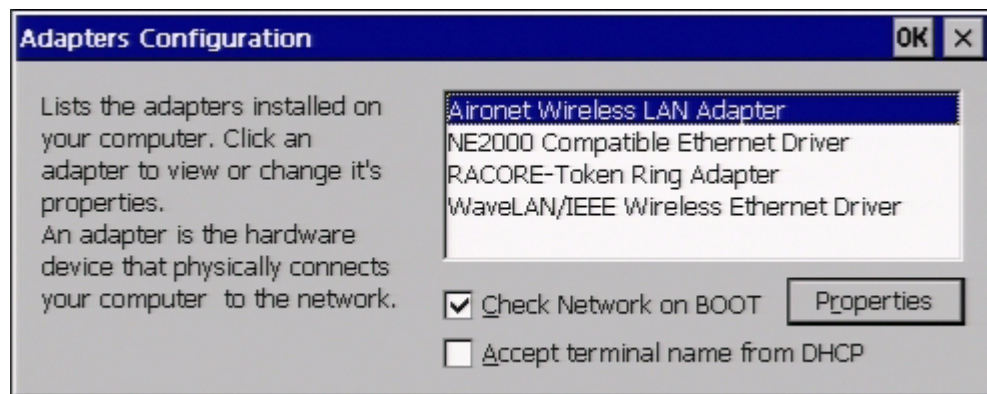
Using the Adapters Configuration Dialog Box

To open this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double click on the **Adapters** icon in the icon container on the **Devices** properties sheet.

The following table discusses the functions of the **Adapters Configuration** dialog box.

Table 22-1   Adapters Configuration Dialog Box

Function	Description
Adapters	This is a list of all the available adapters on a terminal.
Check Network on BOOT check box	Check this box (default is **checked**) if you want the terminal to verify terminal connection to the network upon boot (a message is displayed if the test fails). If you are using an adapter that does not immediately connect to the network upon boot, you may desire to un-check the box so that the message does not appear each time the terminal boots.
Accept Terminal Name from DHCP check box	Some (but not all) DHCP servers can assign a terminal name through DHCP option 12. If your DHCP server has this capability, check this box if you want your terminal to use this assigned name (default is **Not Checked**).
Properties...	Click on this command button to invoke a properties dialog box. In the properties dialog box are the **IP Address** properties sheet and the **Name Server** properties sheet. The following sections discuss these properties sheets.

IP Address Properties Sheet

Use the **IP Address** properties sheet to enter the IP address of the terminal that is using the adapter. Figure 22-2 shows the **IP Address** properties sheet.

Figure 22-2   IP Address Properties Sheet
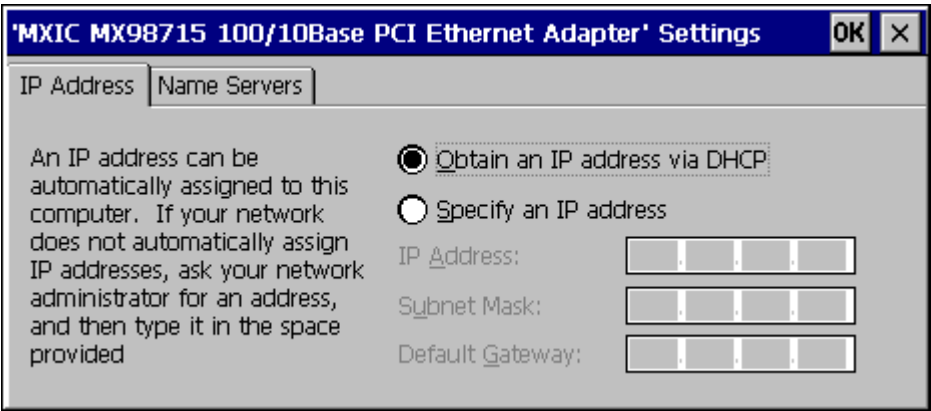
The following table discusses the functions of the **IP Address Properties Sheet**.

Table 22-2   IP Address Properties Sheet

Function	Description
Obtain an IP Address via DHCP	Click on this radio button to let the terminal obtain an IP address automatically using DHCP. This button is selected by default.
Specify an IP Address	Click on this radio button to enter an IP address, subnet, and gateway. By default this function is disabled.
IP Address	Enter an IP address in this field. By default this text box is blank.
Subnet	Enter a subnet in this field. By default this text box is blank.
Default Gateway	Enter a gateway in this field. By default this text box is blank.

Name Server Properties Sheet

Use the **Name Server** properties sheet to enter the IP addresses of the DNS and WINS servers for the terminal using the adapter. Figure 22-3 shows the **Name Server** properties sheet.

Figure 22-3   Name Servers Properties Sheet

The following table discusses this properties sheet.

Table 22-3   Name Server Properties Sheet

Function	Description
Primary DNS	Enter the IP address of your primary DNS (Domain Name Service) server. By default this text box is blank.
Secondary DNS	Enter the IP address of your secondary DNS server. By default this text box is blank.
Primary WINS	Enter the IP address of your primary WINS (Windows Internet Naming Service) server. By default this text box is blank.
Secondary WINS	Enter the IP address of your secondary WINS server. By default this text box is blank.

23 Add-On

The **Add-on** dialog box contains two tab sections that let you remove firmware add-ons and to display information about available flash memory.

To open this dialog box:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **Add-on** icon in the icon container on the **Devices** properties sheet.

☑ **Note**

To install an add-on, refer to the specific add-on documentation.

Add-on Dialog Box Uninstall Tab

Figure 23-1 shows the **Uninstall** tab section of the **Add-on** dialog box. To remove a specific firmware add-on, select it from the list and click **Remove...**. Follow the prompts to complete the removal process.

The terminal must be turned off and restarted for changes to take effect.

Figure 23-1 Uninstall Dialog Box
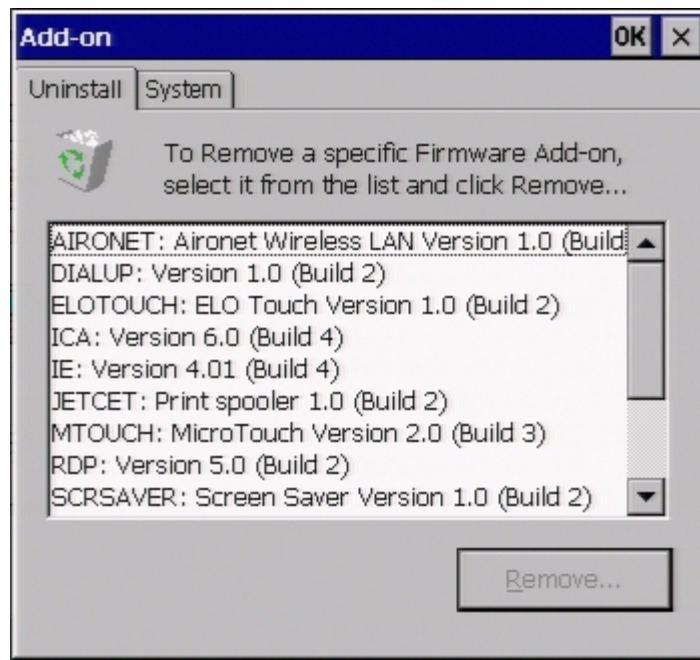
Add-on Dialog Box System Tab

Figure 23-2 shows the **System** tab section of the **Add-on** dialog box. It displays information about available flash memory and has no user controls.

Figure 23-2   System Dialog Box
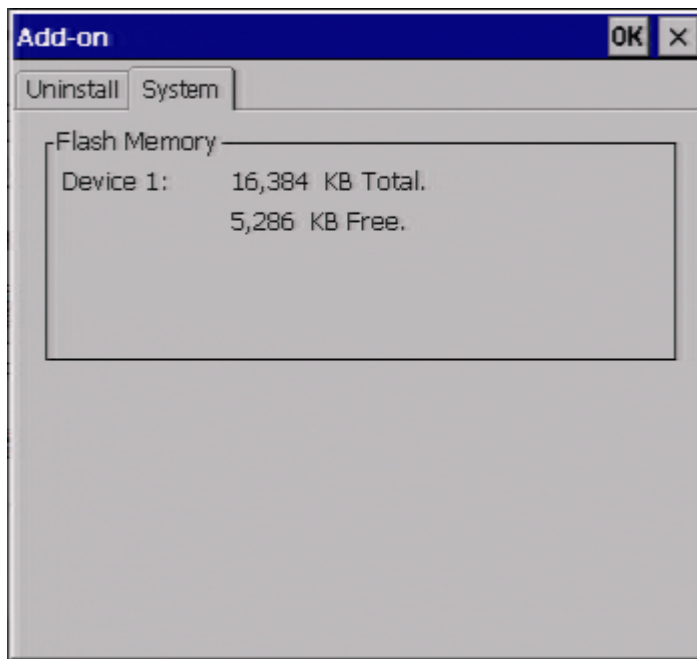
24 Aironet Wireless LAN Adapter Setup

The **Aironet** dialog box (Figure 24-1) allows you to configure the Aironet wireless LAN adapter solely by menu selections. To open this dialog box:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double-click on the **Aironet** icon in the icon container on the **Devices** properties sheet.

Figure 24-1   Aironet Wireless LAN Adapter Setup Dialog Box
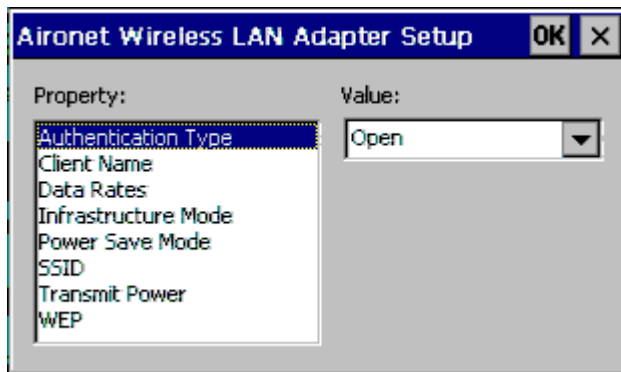
Using the Aironet Dialog Box

To configure the wireless LAN adapter, select a property from the **Property** list and select the desired value from the **Value** drop-down menu. Repeat the process for each listed property.

25 PC Card Adapters for Modems

Your WBT supports PCMCIA adapted modems. This chapter discusses the setup for PCMCIA modems. Figure 25-1 shows the **Add or Change Modem** dialog box. Use this dialog box to set up a PCMCIA modem.

To open the dialog box, click on the **Add/Change Modem...** command button on the **Devices** properties sheet.

Figure 25-1   Add or Change Modem Dialog Box

Table 25-1 discusses the functions of this dialog box.

Table 25-1   Add or Change Modem Dialog Box

Function	Description
Modem Name	This field displays the brand name of the modem in your system.
Init Commands	Enter a modem initialization command string in this field. The default is **ATE0V1&C1&D1<cr>**.
Flow Settings	Use this group box to set the following flow settings: **Flow Hardware** Enter a flow hardware command string in this field. The default is **AT&K3<cr>**. **Flow Software** Enter a flow software command string in this field. The default is **AT&K4<cr>**. **Flow Off** Enter a flow hardware command string in this field. The default is **AT&K0<cr>**.

☑ **Note**

The Hayes command set is discussed in greater detail
in "Modem AT Commands."

ISDN Settings

Use the **ISDN Settings** dialog box to set the terminal's ISDN (Integrated Services Digital Network) settings. If you do not know this information, ask your system administrator. Figure 25-2 shows the dialog box. To invoke the dialog box, click on the **ISDN Settings...** command button on the **Devices** properties sheet.

> ☑ **Note**
>
> These settings are specific to EiCon-Tech modems only.

Figure 25-2   ISDN Settings Dialog Box
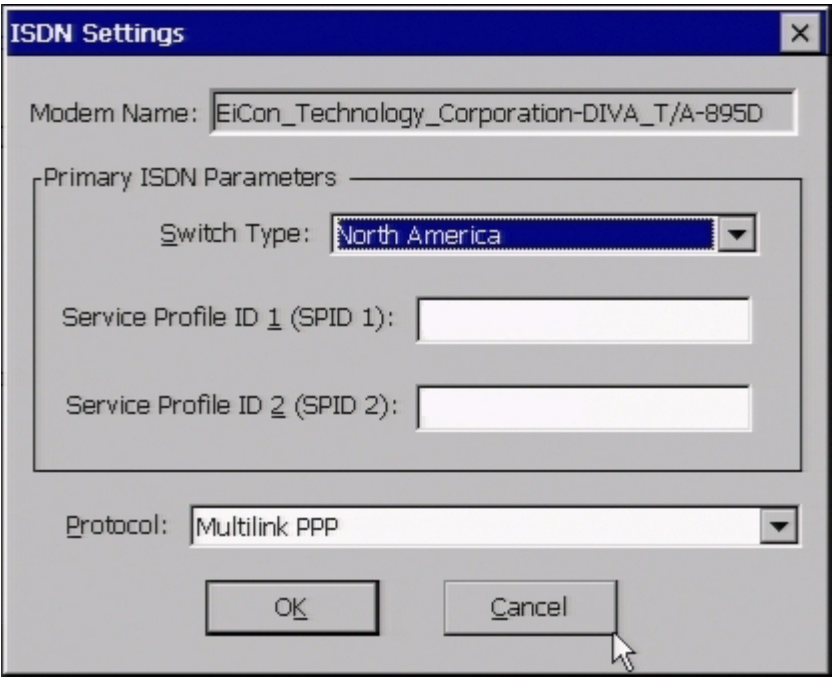
Table 25-2 discusses the functions of the **ISDN Settings** dialog box.

Table 25-2   ISDN Settings Dialog Box

Function	Description
Modem Name	This field displays the brand name of the modem in your system.
Primary ISDN Parameters	Use this group box to configure the following ISDN parameters:
	Switch Type
	Use this drop-down scroll list to select the switch type. The default is **North America**.
	Service Profile ID 1
	Use this field to enter **Service Profile ID 1**. Only numbers are allowed in this text box.
	✅ **Note**
	Enter the SPID provided by your ISDN line provider (telephone company).
	Service Profile ID 2
	Use this field to enter **Service Profile ID 2**. Only numbers are allowed in this text box.
	✅ **Note**
	Enter the SPID provided by your ISDN line provider (telephone company).
Protocol	Use this drop-down scroll list to select a protocol. The default is **Multilink PPP**.

26 Touchscreens

Your WBT supports touchscreens. This chapter discusses the setup for the two touchscreens the terminal supports, ELO and MicroTouch.

ELO Touchscreen

Figure 26-1 shows the **ELO Touchscreen** dialog box. Use this dialog box to calibrate an ELO touchscreen.

To open this dialog box:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double-click on the **ELO Touch** icon in the properties sheet's icon container.

Figure 26-1   ELO Touchscreen Dialog Box
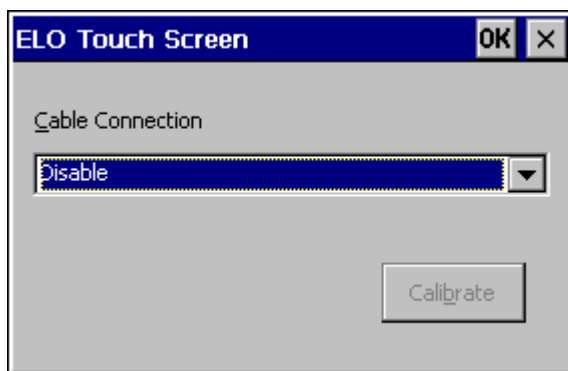
Table 26-1 discusses the dialog box.

Table 26-1   ELO Touchscreen Dialog Box

Function	Description
Cable Connection	Select from this scroll list the Com port to which the touchscreen is connected: • **Disable** • **Serial Cable on COM1** • **Serial Cable on COM2** The default for the list is **Disable**.
Calibrate	Click on this command button to calibrate the touchscreen. The button will be deactivated if a touchscreen is not connected to one of the terminal's Com ports or USB connectors. ☑ **Note** After a Com port is selected, the terminal must be restarted. When you click on **Calibrate**, a white screen with a single cross-hair in the upper left-hand corner displays: **1.** Touch the cross-hair. The cross-hair will move to the lower right-hand corner. **2.** Touch the cross-hair. The cross-hair will move to the upper right-hand corner. **3.** Touch the cross-hair. The **ELO Touchscreen** dialog box displays. **4.** Click on **OK**. Calibration is complete.

MicroTouch Touchscreen

Figure 26-2 shows the **Microtouch Touchscreen Properties** dialog box. Use this dialog box to set up a Microtouch touch screen.

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double-click on the **Touchscreen** icon in the properties sheet's icon container.

Figure 26-2   Microtouch Touchscreen Properties Dialog Box
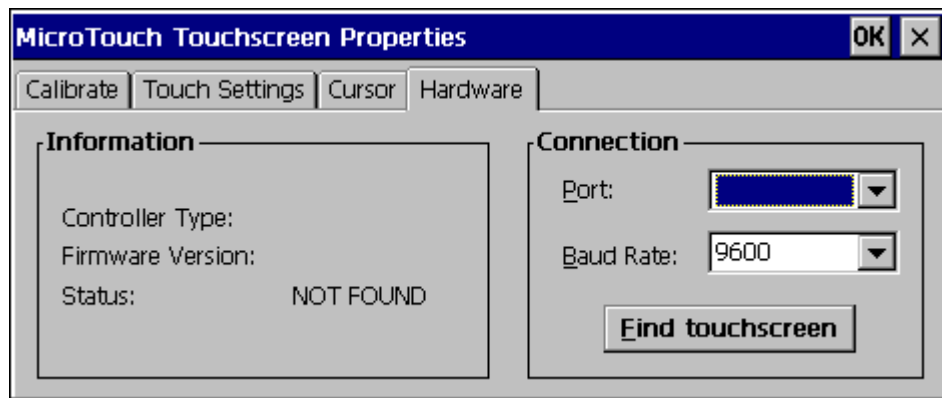
The **Microtouch Touchscreen Properties** dialog box contains four properties sheets. The rest of this section discusses these properties sheets.

Hardware Properties Sheet

The **Hardware** properties sheet is displayed by default and is shown in Figure 26-2. The following table discusses the properties sheet.

Table 26-2   Hardware Properties Sheet

Function	Description
Information	This group box displays information about the touchscreen that is connected to your terminal. To display the information, click on **Find Touchscreen** (see below).
	Controller Type This field shows the controller type.
	Firmware Version This field shows the firmware version.
	Status This field shows the status: • **OK** • **Not Found** If there is no MicroTouch touch screen connected to the terminal, the **Status** field will display **Not Found**.
Connection	Use this group box to configure the connection between the terminal and the touchscreen.
	Port Select the Com port that the touchscreen is connected to.
	Baud Rate Select the proper baud rate for the connection.
	Find Touchscreen Click on this command button to detect the touchscreen.

Cursor Properties Sheet

The **Cursor** properties sheet is shown in Figure 26-3.

Figure 26-3   Cursor Properties Sheet
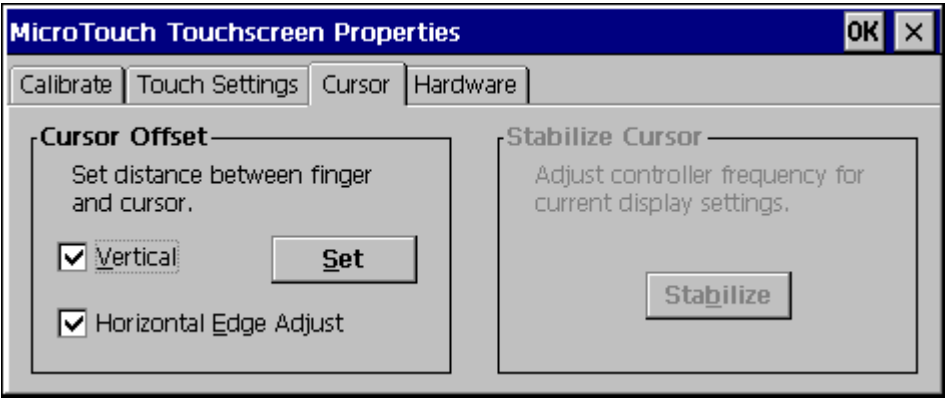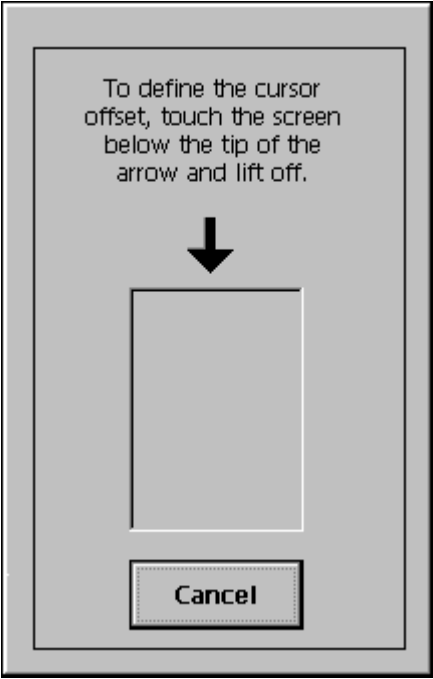
Table 26-3 discusses the **Cursor** properties sheet.

Table 26-3   Cursor Properties Sheet

Function	Description
Cursor Offset	Use this properties sheet to set the distance between your finger and the cursor.
	Vertical Check this check box to set the vertical distance.
	Horizontal Edge Adjust Check this check box to set the horizontal distance.

Table 26-3   Cursor Properties Sheet, Continued

Function	Description
	Set Click on this command button to invoke a dialog box that will allow you to set distances:

Follow the instructions on the dialog box.

Function	Description
Stabilize Cursor	This command button is always deactivated.

Touch Settings Properties Sheet

Figure 26-4 shows the **Touch Settings** properties sheet.

Figure 26-4   Touch Settings Properties Sheet
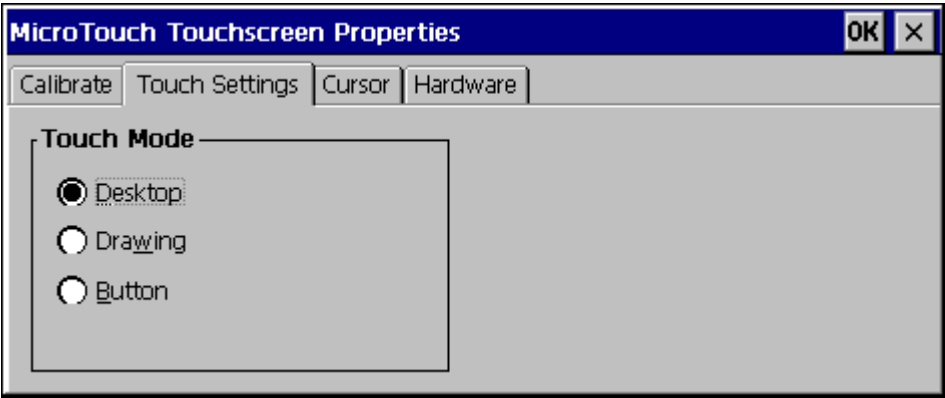
The following table discusses this properties sheet.

Table 26-4   Touch Settings Properties Sheet

Function	Description
Touch Mode	Use this group box to configure a touch mode. A touch mode specifies actions that equate to mouse click, double-click, and drag events.
	Desktop Check this check box to enable desktop mode. Desktop mode is used for general desktop applications.
	Drawing Check this check box to enable drawing mode. Drawing mode is used for graphics applications.
	Button Check this check box to enable button mode. Button mode is used for applications that use button-type UIs.

Calibrate Properties Sheet

The **Calibrate** properties sheet is shown in Figure 26-5.

Figure 26-5   Calibrate Properties Sheet
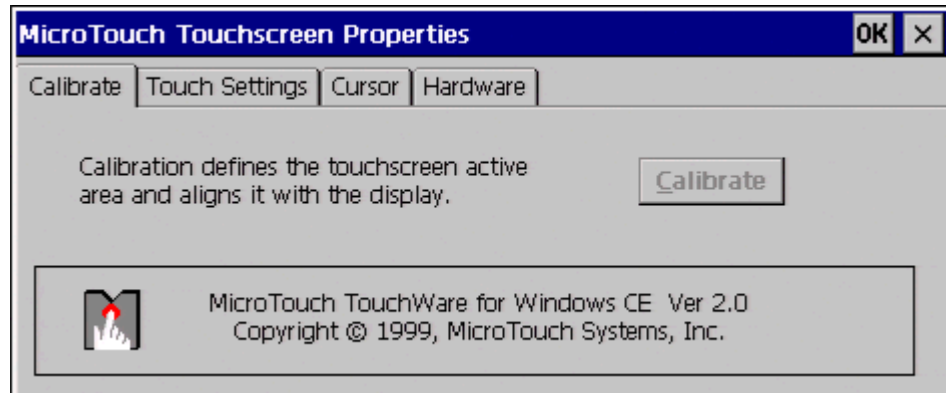
The **Calibrate** properties sheet has one command button. Click on the **Calibrate** command button to begin the calibration process. A white screen with a single cross-hair in the lower left-hand corner displays:

1. Touch the cross-hair. The cross-hair will move to the upper right-hand corner.

2. Touch the cross-hair. The **Calibration Complete** dialog box displays.

3. Follow the instructions in the **Calibration Complete** dialog box to complete the calibration process.

27 Date/Time Properties

The **Date/Time Properties** dialog box (Figure 27-1) allows you to set the date and time on the terminal.

To open this dialog box:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double-click on the **Date/Time-on** icon in the icon container on the **Devices** properties sheet.

Figure 27-1   Date/Time Properties Dialog Box
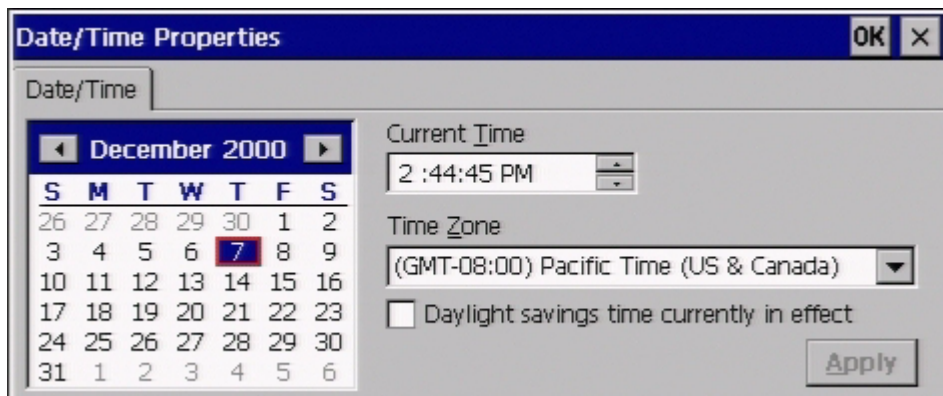
Use the calendar to set the date. Select the **Time Zone** and check the check box if daylight savings time is currently in effect.

✔ **Note**

If a time server is available (See **SNTP Client** chapter), the terminal time will automatically synchronize to the time provided by the server. Otherwise, the time must be set manually.

To manually set the time, enter a time slightly ahead of the actual time in **Current Time** text box, and then just as the actual time reaches the set time, click on the **Apply** button.

28 JETCET PRINT

JETCET PRINT Professional is a utility that supports local printing from your Windows CE-based terminal.

☑ Note

> JETCET only supports IE 4.0. ICA, RDP, or terminal emulations do not use the JETCET printer driver.

The **JETCET PRINT Professional** dialog box (Figure 28-1) allows you to select printing properties. To open this dialog box:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **JETCET PRINT Pro** icon in the **Devices** tab.

Table 28-1 describes the available printing options and settings.

Figure 28-1   JETCET PRINT Professional Dialog Box
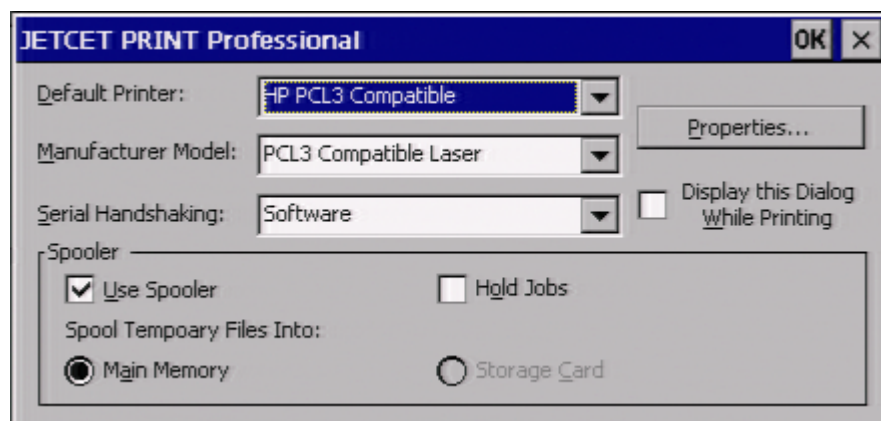
Table 28-1   JETCET PRINT Professional Dialog Box Settings

Function	Description
Default Printer drop-down list box	Displays a list of supported printers.
Manufacturer Model drop-down list box	Displays a list of manufacturers of the currently selected default printer. Available printers are: • Cannon BJC • Citizen • Epson Compatible • **HP PCL3 Compatible** (default) • PocketJet • PocketJetII • PostScript ✔ **Note** These are the only supported printers.
Serial Handshaking drop-down list box	Allows selection of software or hardware handshaking between the terminal and the printer. Default is software.
Spooler area	Controls in this area are used to select print spooler options. Checking **Use Spooler** (default is checked) enables the **Hold Jobs** check box and the spooler memory selection radio buttons. Currently only main memory is available (**Main Memory** radio button permanently active). If you check **Hold Jobs**, the print jobs will be held in main memory until the box is un-checked.

Table 28-1   JETCET PRINT Professional Dialog Box Settings, Continued

Function	Description
Display this Dialog While Printing check box	Check if you want this dialog box to automatically open when printing.
Properties... command button	Opens the **Printer Properties** dialog box. This dialog box has four tab sections, each of which contains controls for setting a category of print properties: • Color (Figure 28-2) • Dithering (Figure 28-3) • Toner Saver (Figure 28-4) • Layout (Figure 28-5)

Figure 28-2   Printer Properties Dialog Box, Color Tab
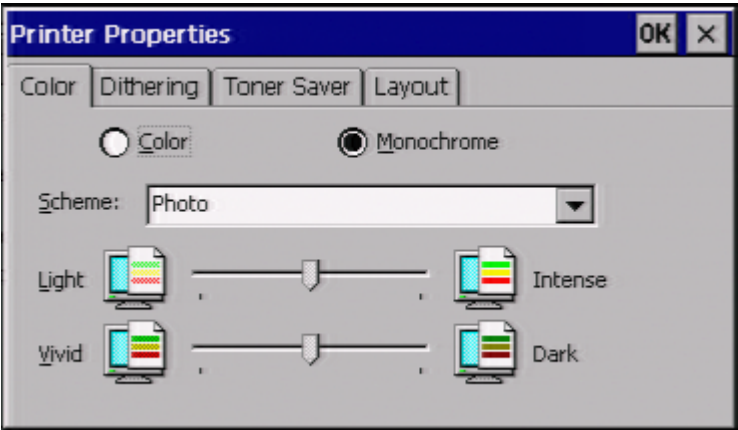
Figure 28-3   Printer Properties Dialog Box, Dithering Tab
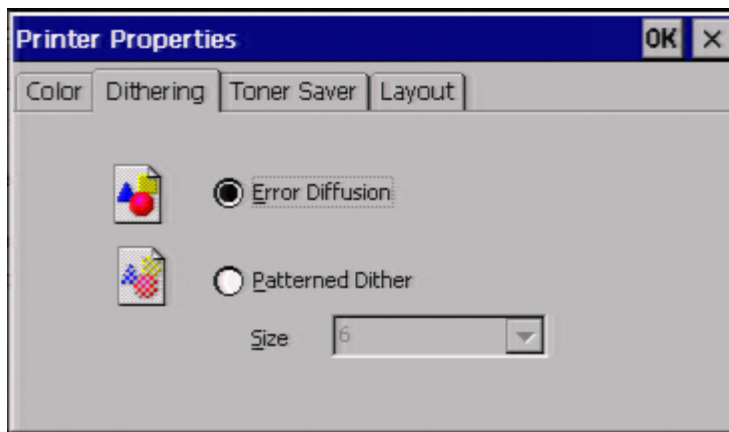
Figure 28-4   Printer Properties Dialog Box, Toner Saver Tab
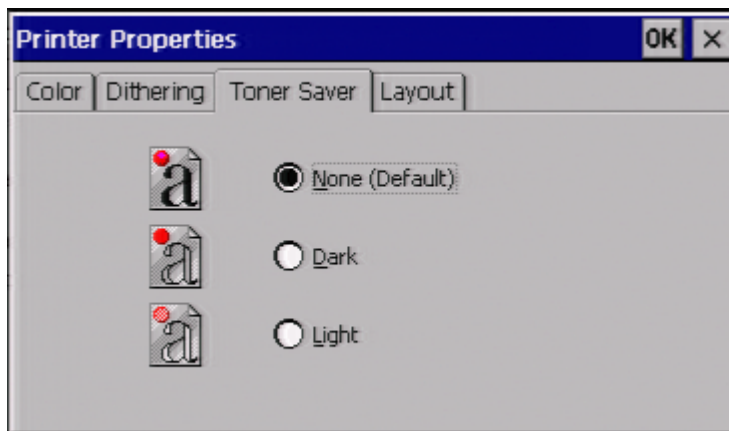
Figure 28-5   Printer Properties Dialog Box, Layout Tab
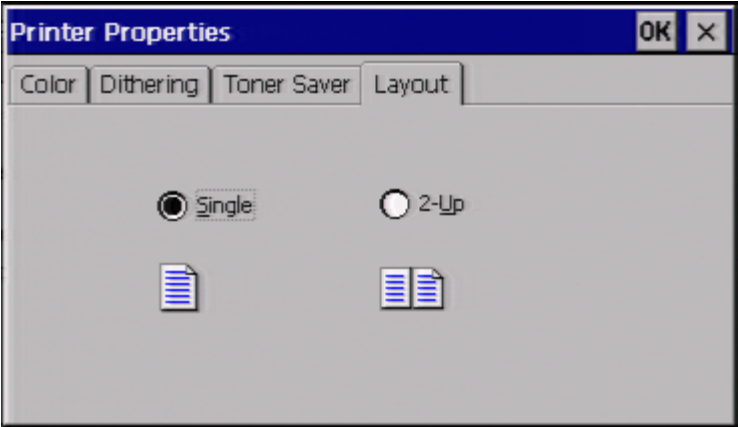
29 Local Printers

The terminal supports both Line Printer Daemon (LPD) printing and printing from applications.

LPD Printing

This paragraph discusses the configuration of local printing using the **LPD Config** dialog box.

> ✔ **Note**
>
> LPD can only be used with the parallel port of a terminal.

Figure 29-1   LPD Config Dialog Box
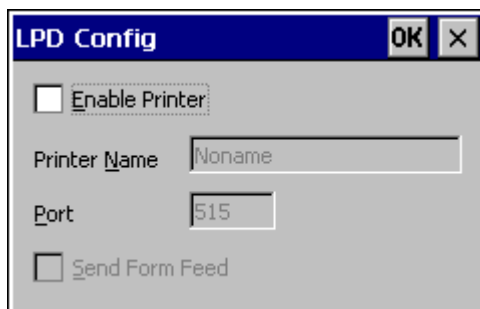
Using the LPD Config Dialog Box

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **LPD** icon in the icon container.

Table 29-1 discusses the dialog box.

Table 29-1   LPD Config Dialog Box

Function	Description
Enable Printer	Check this check box to enable LPD printing to a printer connected to your terminal.
Printer Name	Type in this field the name of the connected printer. The default for this field is **Noname**.
Port	Type in this field the virtual port number. Virtual port is a logical device assigned when you set up LPD services on your server. The default for this field is **515**.
Send Form Feed	Check this check box to enable form feeds.

RDP Printing

You may print to a local printer from RDP (Remote Desktop Protocol) 5.0/Win2K applications. This paragraph describes how to select the driver for a connected printer.

Printers Properties Sheet

Figure 29-2 shows the **Printers** properties sheet. To invoke this properties sheet:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Printers** tab.

Figure 29-2   Printers Properties Sheet
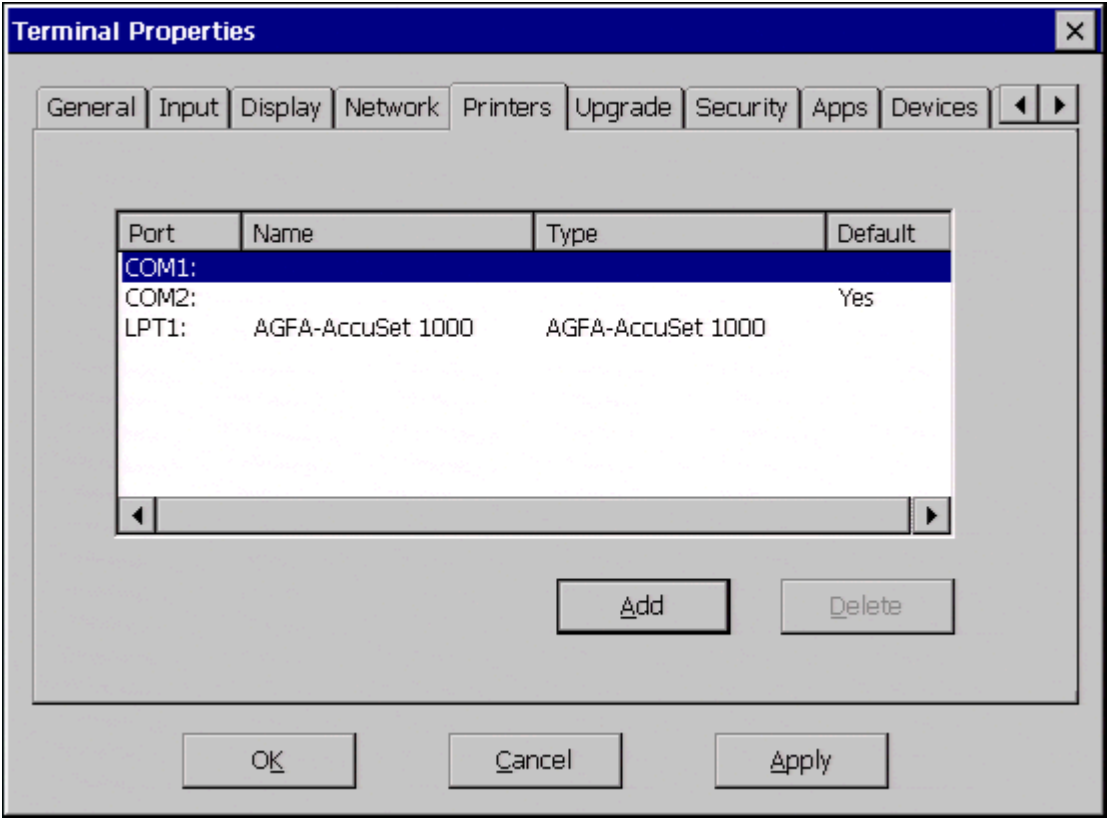
Table 29-2 discusses the properties sheet.

Table 29-2   Printers Properties Sheet

Function	Description
List box	Contains a listing of printers associated with each available port (Com1, Com2, LPT1). Lists the name, type, and whether it is the default printer.
	Select a port in this list and press the **Add** / **Properties** command button to open the **Printer Properties** dialog box (see Figure 29-3) which allows you to configure a printer for the port. Double-clicking the listing has the same effect as pressing the button.
Add / **Properties** command button	If the selected port does not have a printer associated with it, the command button label will be **Add**; otherwise the label will be **Properties**. Clicking on the button opens the **Printer Properties** dialog box, which enables the user to either select a printer for the port or change the printer properties for the selected port.
Delete command button	Deletes printer listing (if properties are defined) for the selected port.

Using the Printer Properties Dialog Box

Figure 29-3 shows the **Printer Properties** dialog box.

Figure 29-3   Printer Properties Dialog Box
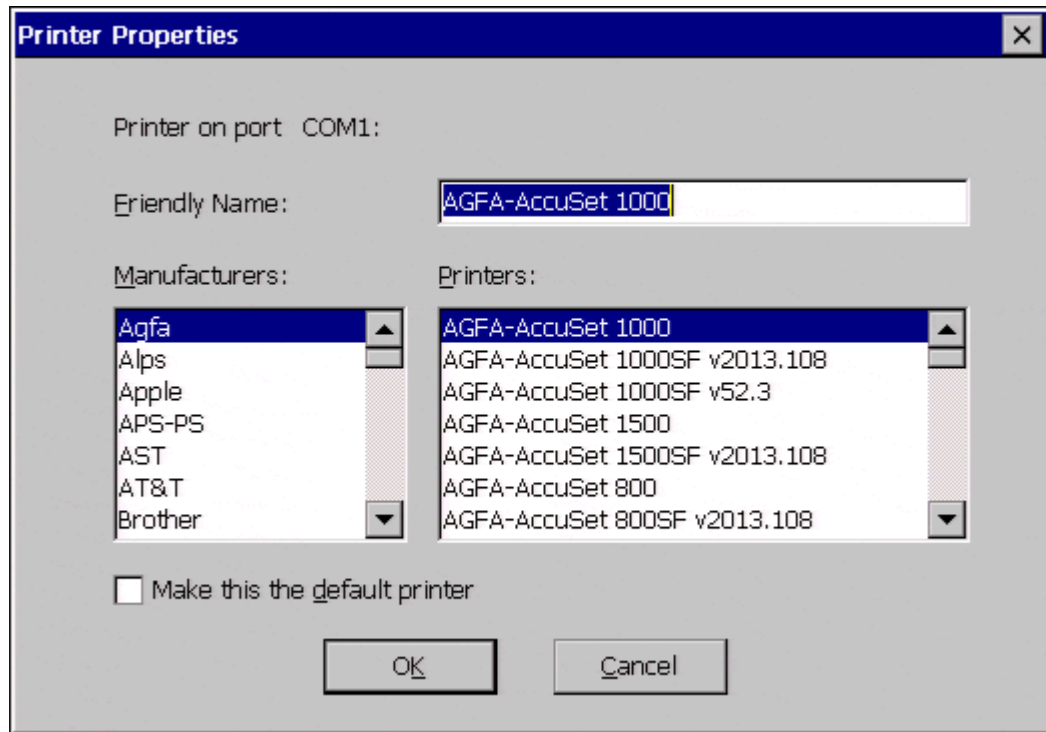
Use the **Manufacturers** and **Printers** list boxes to select a printer. The **Printer Name** text box will initially contain the manufacturer's name for the printer. Overtype this with the name by which you will refer to this printer. If you want this to be the default printer, check the Make this the default printer box (this will de-select another printer previously selected as default). Click **OK** to accept the properties and close the box or click **Cancel** to cancel the selection and close the box.

30 PC Card Adapters for Token Ring Networks

> ### ✓ Note
>
> This chapter applies only to the Model **T1010** terminal.

Your WBT supports PCMCIA RACORE token ring adapter cards. This chapter discusses the setup for RACORE token ring card. Figure 30-1 shows the **RACORE Token Ring Adapter Settings** dialog box. Use this dialog box to configure a RACORE token ring card.

Using the RACORE - Token Ring Adapter Settings Dialog Box

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **RACORE - TR** icon in the icon container on the **Devices** properties sheet.

Figure 30-1   RACORE - Token Ring Adapter Settings Dialog Box
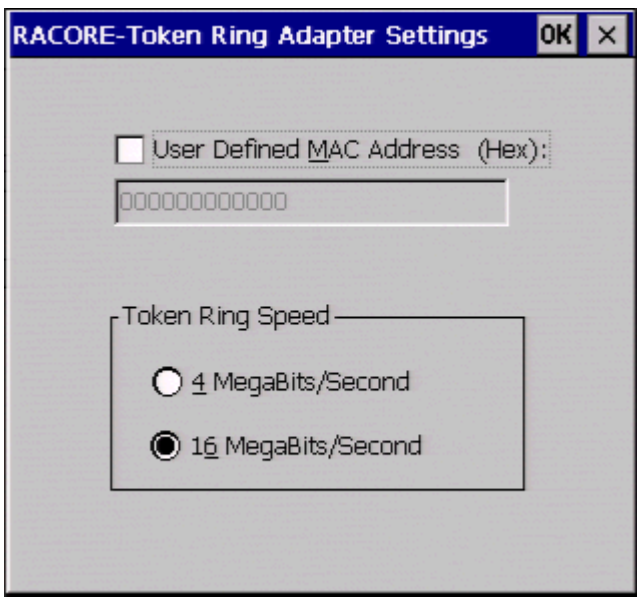
Table 30-1 discusses the dialog box.

Table 30-1   RACORE - Token Ring Adapter Settings

Function	Description
User Defined MAC Address	Use this text field to enter the MAC address of the token ring PC card. The default is **000000000000**.
Token Ring Speed	Use this group box to select the speed of your token ring network. The default is **16 Megabits/Second**
	4 Megabits/Second Click on this radio button if your network is set to a passing speed of 4 megabits.
	16 Megabits/Second Click on this radio button if your network is set to a passing speed of 16 megabits.

31 SNTP Client

Your terminal is capable of synchronizing its clock to time provided by an SNTP (Simple Network Time Protocol) server. Figure 31-1 shows the **SNTP Client** dialog box. Use this dialog box to select the SNTP server and to synchronize the terminal time.

> ☑ **Note**
>
> SNTP client is available only when IE4 is installed.

Using the SNTP Client Dialog Box

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **SNTP Client** icon in the icon container on the **Devices** properties sheet.

Figure 31-1   SNTP Client Dialog Box
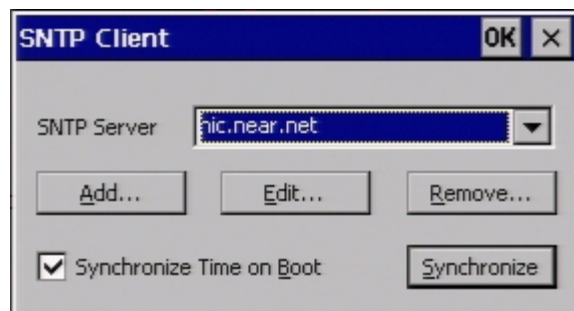
Table 31-1 discusses the dialog box.

Table 31-1   SNTP Client Settings

Function	Description
SNTP Server drop-down list box	Permits selection of an SNTP server from a list built using the **Add**, **Edit**, and **Remove** command buttons.
Add, **Edit**, and **Remove** command buttons	**Add** and **Edit** open the **Edit SNTP Server** dialog box, from which you may add to the SNTP server list or edit a current selection. The IP address or DNS name of the server may be used. **Remove** deletes the selected entry from the list.

Synchronize Time on Boot check box	Check this box if you want the terminal to automatically synchronize to the SNTP time server when the terminal boots. Default is **checked**.
Synchronize command button	Causes the terminal time to immediately synchronize to the selected SNTP server. A message appears if synchronization fails. This feature can be used to test availability of listed SNTP servers.

32 PC Card Adapters for Wireless Networks

Your WBT supports PCMCIA adapters for WaveLAN wireless networks. This chapter discusses the setup for these adapters. Figure 32-1 shows the **WaveLAN/ IEEE Settings** dialog box.

Using the WaveLAN/IEEE Settings Dialog Box

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Double-click on the **WaveLAN** icon in the icon container.

The **WaveLAN/IEEE Settings** dialog box contains four properties sheets. The rest of this section discusses these properties sheets.

Basic Properties Sheet

The **Basic** properties sheet is the default of the dialog box and is shown in Figure 32-1.

Figure 32-1   WaveLAN/IEEE Settings Dialog Box
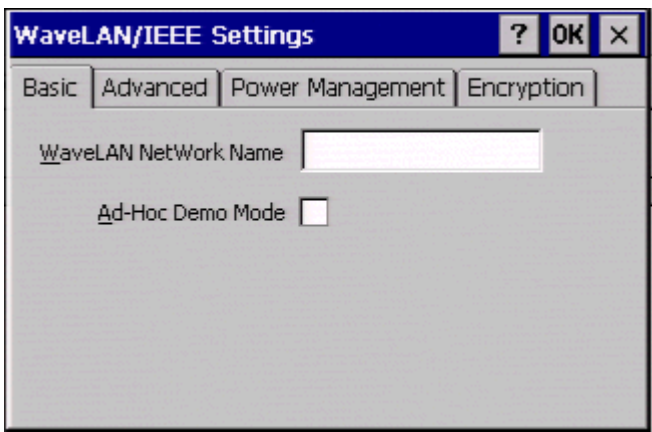
The following table discusses the properties sheet.

Table 32-1   Basic Properties Sheet

Function	Description
WaveLAN Network Name	Enter in this field the name of the LAN network that you want to connect to. This field must match the name of the current wireless network infrastructure. The default for this field is blank.
Ad-Hoc Demo Mode	Click here to enable **Ad-hoc Demo Mode**. Enabling this mode will allow the terminal to connect to a small wireless workgroup. In this mode the terminal will:
	• Ignore **WaveLAN Network Name**.
	• Ignore **WavePOINT-II** access points.
	• Fix the radio to operate at factory default.
	By default the check box is unchecked.

Advanced Properties

The **Advanced** properties sheet is shown in Figure 32-2.

☑ **Note**

Advanced properties normally should not need to be
changed. The default values should be sufficient for
normal network use.

Figure 32-2   Advanced Properties Sheet
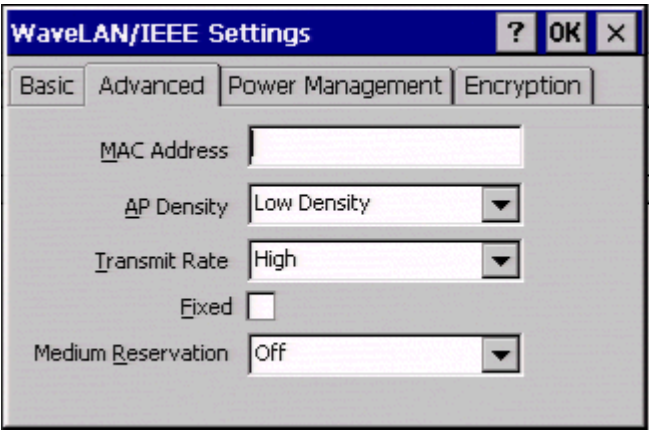
The following table discusses this properties sheet.

Table 32-2   Advanced Properties Sheet

Function	Description
MAC Address	Enter in this field a user assigned MAC address. You will not have to change this parameter for most networks. You will only have to assign an address if your network uses local MAC addressing. By default this field is blank.

Table 32-2   Advanced Properties Sheet, Continued

Function	Description
AP Density	Select in this scroll box an AP density (access point density) value. This parameter controls the roaming sensitivity of the terminal. The values are: • **Low Density** • **Medium Density** • **High Density** This parameter is set by: • The density of access points in the network. • The configuration of the access points. The default is **Low Density**.
Transmit Rate	Select in this scroll box the transmission rate of the connection. The values are: • **Low** • **Standard** • **Medium** • **High** The default is **High**.
Fixed	Click to check this box to disable the Auto-Transmit Rate Select function. The default is unchecked.
Medium Reservation	Select from this scroll list: • **Off** • **Hidden Stations** This function improves wireless performance in a network. It prevents message collision. The default is **Off**.

Power Management

Figure 32-3 shows the **Power Management** properties sheet.

Figure 32-3   Power Management Properties Sheet
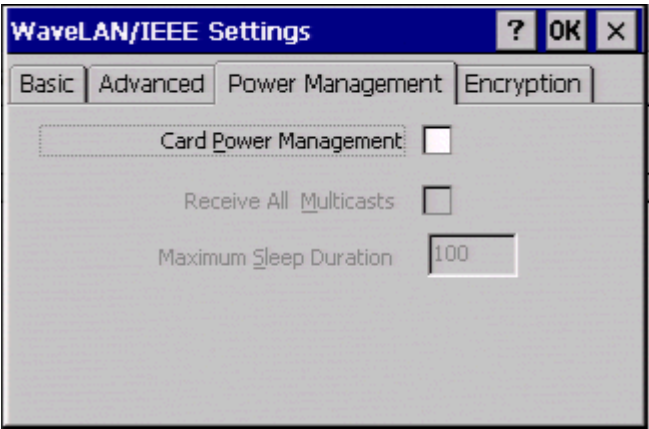
Table 32-3 discusses the properties sheet.

Table 32-3   Power Management Properties Sheet

Function	Description
Card Power Management	Click to check this box to enable power management. Power management conserves the life of the battery of a portable device. When **Card Power Management** is enabled, the other functions of the properties sheet are activated. By default the box is unchecked.
Receive All Multicasts	Click to check this box to enable the terminal to wake up and receive multicasts. The default for this box is deactivated.
Maximum Sleep Duration	Enter in this field the maximum time the terminal is allowed to sleep. The default is **100**.

Encryption

Figure 32-4 shows the **Encryption** properties sheet.

Figure 32-4   Encryption Properties Sheet
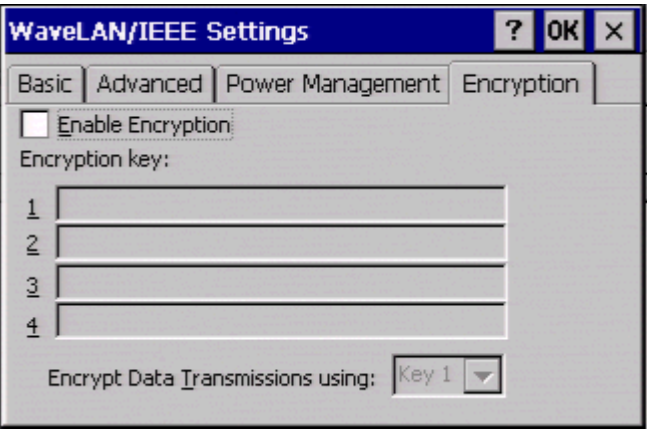
Table 32-4 discusses the properties sheet.

Table 32-4   Encryption Properties Sheet

Function	Description
Enable Encryption check box	Check this box to enable encryption.
Encryption Key text boxes	Store encryption keys that you may use.
Encryption Data Transmission using list box	Select the key you are currently using.

33 Volume Properties

Your WBT supports audio for the ICA client. This chapter discusses the audio controls (see below).

✓ **Note**

This volume control will function only before Windows Media Player is launched.

Figure 33-1   Volume Properties Dialog Box
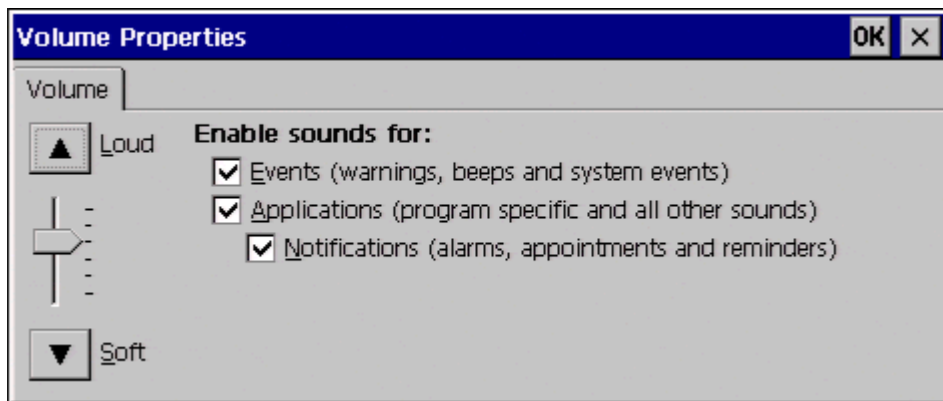
Using the Volume Properties Dialog Box

To invoke this dialog box:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Devices** tab.

3. Click on the **Volume** icon in the icon container.

Table 33-1 lists the controls in the dialog box.

Table 33-1   Volume Properties Dialog Box

Function	Description
Volume slider control	Adjusts the audio volume.
Enable sounds for check boxes (3)	Check these boxes as appropriate to enable sounds for: • **Events** - warnings, beeps and system events. • **Applications** - program specific and all other sounds. If this box is unchecked, **Notifications** is disabled (grayed). • **Notifications** - alarms, appointments and reminders. Available only if **Applications** is checked.

Firmware Upgrades

34 Cable Firmware Upgrades

The following section describes the cable method of firmware download. The cable method for all terminals is parallel download, using a Laplink®cable and the MS-DOS xfer.exe program.

⊠ **Caution**

Do not power the terminal off during the upgrade.

☑ **Note**

1. Installation of add-ons can not be performed through this method.
2. This method does not support upgrades for multip[le flash device units (See **Terminal Properties** | **SysInfo** tab for flash configuration).

Setup

The following equipment may be needed:

- IBM-compatible PC with a CD-ROM drive and a parallel port.
- Terminal firmware upgrade diskette or CD, or downloaded firmware binary
- LapLink or equivalent parallel port communications cable (used only if parallel port is used for downloading).

✔ **Note**

> For convenience, drive D:\ is used here for the CD drive. You should substitute the appropriate drive letter for your PC.

Parallel Flash Download Procedure

This procedure includes manual download instructions. The download procedure will not work unless your PC is booted to DOS.

1. Record the terminal's current configuration.

☒ **Caution**

> All previous settings will be lost. Upgrading the firmware defaults the current configuration to the factory default settings.

2. Turn off the terminal.

3. Connect a parallel LapLink cable from the parallel port of your PC to the parallel port of the terminal.

4. Insert the firmware upgrade CD into your PC.

5. Type *D:* at the DOS prompt to select the drive where the download files exist. Use the *dir* command to find the files.

6. Perform the following Manual Download procedure."

Manual Download

Use the following instructions to perform a manual download.

1. Type ***xfer*** <***filename.ext***> at the DOS prompt

2. Press **Enter**, and the **Download Utility** dialog box appears. See the following figure.

Figure 34-1   Download Utility Dialog Box
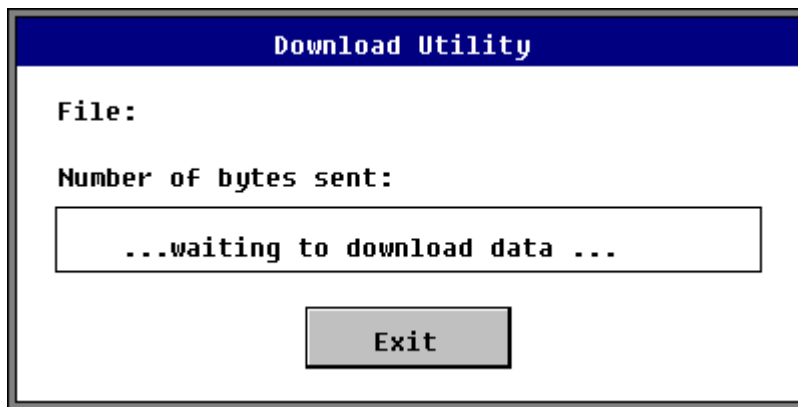
3. Power-up the terminal to initiate the download.

The **Firmware Upgrade** dialog box appears, showing that the download is in progress. When the download is complete, disconnect the parallel cable. The **Setup Wizard** will appear.

✔ Note

If the download dialog box remains on the screen longer than 1 minute, press the **Enter** key. A prompt to repeat or quit the operation appears. If the download fails, quit the procedure, check all cables and connections, then repeat from Step 2.

Cable Pinouts

Parallel Download Cable Pinouts

The following table lists the parallel download cable pinouts.

Table 34-1 Parallel Download Cable Pinouts

PC Side	Terminal Side
Pin 01	Pin 01
Pin 02	Pin 15
Pin 03	Pin 13
Pin 04	Pin 12
Pin 05	Pin 10
Pin 06	Pin 11
Pin 07	*
Pin 08	*
Pin 09	*
Pin 10	Pin 05
Pin 11	Pin 06
Pin 12	Pin 04
Pin 13	Pin 03
Pin 14	Pin 14
Pin 15	Pin 02
Pin 16	Pin 16
Pin 17	Pin 17
Pins 18 to 25	Pin 25 Gnd
* - Pin(s) not connected	

The following figure shows the connections for the parallel download cable.

Figure 34-2   Parallel Download Cable Connectors

Pin (Terminal Parallel Port)		Pin (Download Device)
1		1
2		15
3		13
4		12
5		10
6		11
7	Not Used	
8	Not Used	
9	Not Used	
10		5
11		6
12		4
13		3
14	Not Used	
15		2
16	Not Used	
17		19
18		18
19		17
20	Not Used	
21		21
22		22
23		23
24	Not Used	
25		25

Terminal Parallel Port

Download Device

13   1

25   14

DB-25M
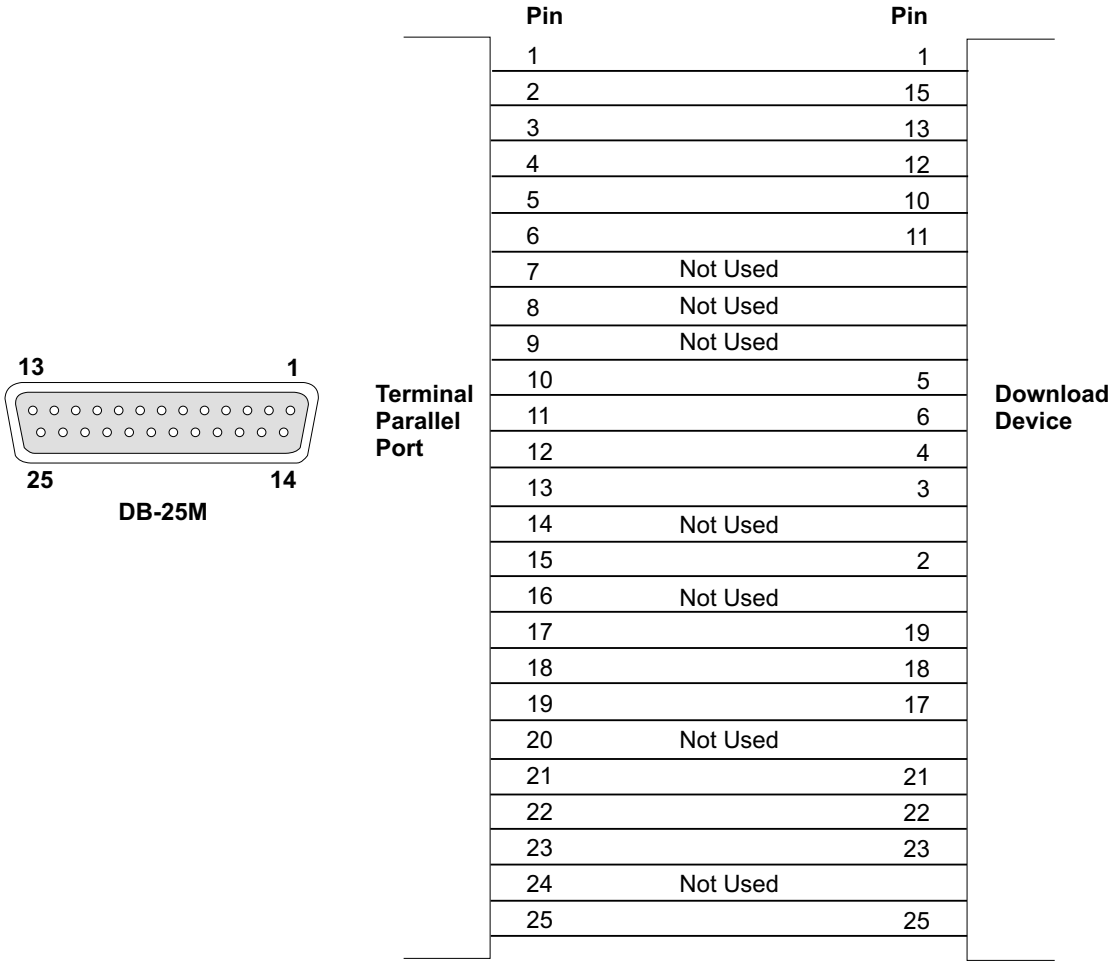
35 FTP Pull Firmware Upgrades

Use the **Upgrade** properties sheet to:

1. Set up a terminal for communication with an FTP server.

2. Perform FTP pull upgrades.

See Figure 35-1.

Using the Upgrade Properties Sheet

To invoke this properties sheet:

1. Press the **F2** key.

2. Click on the **Upgrade** tab in the **Terminal Properties** dialog box.

Figure 35-1   Upgrade Properties Sheet

The following table describes the functions found on this properties sheet.

Table 35-1   Upgrade Properties Sheet

Function	Description
Local Firmware Upgrade	Use this group box to upgrade your terminal's firmware using an FTP server. The functions are: **Use FTP Information from DHCP Server** Select this function if you want to get the FTP server and directory information from a DHCP server. Click on this radio button to select the function. By default the function is disabled. **Use Local FTP Information** Select this function if you want to enter the FTP server you will use for the upgrade. Click on the radio button to select the function. By default the function is enabled. **Server Name** Enter the name or IP address of the FTP server where the binary and params.ini reside. The default is blank. **Server Directory** Enter the directory on the FTP server where the binary and params.ini reside. The default is blank. **User ID** Enter your user account in this field. The default is **anonymous**. **Password** Enter your password in this field. The default is *****. **Status** This display box shows status information about the connection to the FTP server, and the firmware download. Connect and download errors are also reported. The default is blank.

Table 35-1   Upgrade Properties Sheet, Continued

Function	Description
	Save Password Check this box to save the entered password in the registry.
Upgrade	Click on this command button to initiate the upgrade procedure. By default the button is disabled an FTP server selection is made in the **Local Firmware Upgrade** area of the dialog box.

FTP and Params.ini

> ✅ **Note**
>
> Params.ini must be installed on your FTP server to upgrade your terminal. The upgrade firmware can be obtained through the manufacturer's customer support.

Download is initiated through the **Upgrade** command button on the **Upgrade** properties sheet. Information in the **Upgrade** properties sheet must be filled out to ensure a proper download. See "Changing Terminal Properties" in Advanced User Interface for more details about this properties sheet.

The Upgrade Process

To upgrade:

1. Place params.ini and the new firmware file on your FTP server.

2. Press **F2** to invoke the **Terminal Properties** dialog box.

3. Click on the **Upgrade** properties sheet tab and enter the appropriate information.

4. Click on the **Upgrade** command button.

The bootstrap program uses **Server Name**, **User ID**, **Password**, and **Server Directory** from the **Upgrade** properties sheet to access the FTP server. The program performs the upgrade, checks for errors, and reboots the terminal.

> ✅ **Note**
>
> An upgrade can not be cancelled once it has started.

A series of dialog boxes displays during the upgrade.

Figure 35-2   Firmware Upgrade Dialog Box 1
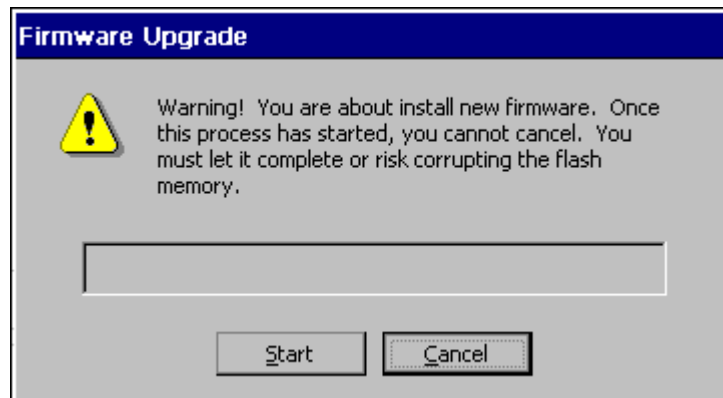
This is the first dialog box that displays. Read for information and click on **Start** to upgrade, or **Cancel** to quit the process.

✔ **Note**

If you are downloading the same version of firmware that is already on the terminal, a dialog box displays reporting that you are downloading the same version.

Figure 35-3   Firmware Upgrade Dialog Box 2
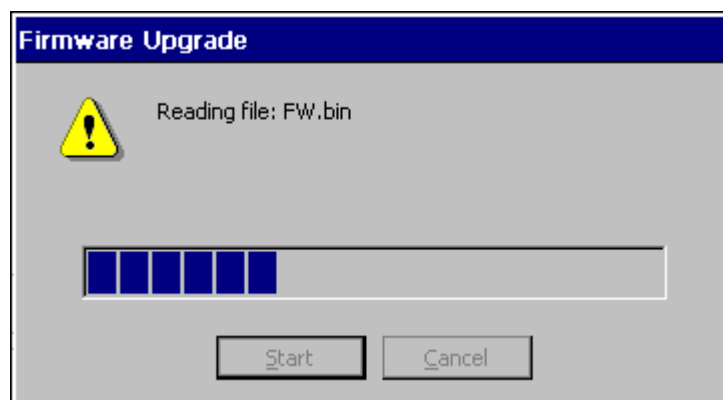
Click on **Start** to begin the download. The process is:

- The image gets read.
- The flash gets erased.
- The image gets written to the flash.

When the upgrade is complete, the terminal will reboot to the **Connection Manager**.

✅ **Note**

If the downloaded image is a lower version from what was on the terminal, the **Setup Wizard** will appear.

36 SNMP Firmware Upgrades

Using the SNMP Network Administration Dialog Box

The **SNMP Network Administration** dialog box contains the functions that you can use to administer to the terminals on your SNMP network. See Figure 36-1.

To invoke this dialog box:

1. Press the **F2** key to invoke the **Terminal Properties** dialog box.

2. Click on the **Apps** tab to invoke the **Apps** properties sheet.

3. Click on the **SNMP Network Administration** command button.

Figure 36-1   SNMP Network Administration Dialog Box

The following table discusses the functions of this dialog box.

Table 36-1   SNMP Network Administration Dialog Box

Function	Description
SNMP Communication	Use this group box to set up SNMP communication using the following functions:
	Enable Authenticating Failure Trap Check this box to enable the authenticating failure trap.
	Community Use this group box to configure the network management of a community.
	Get This field takes the name of the community the SNMP management software will manage with read permission only. If this field is left blank, the community for that terminal will be public. The default for this field is **Public**.
	Set This field contains the name of the community the SNMP management software will manage with write permission. The default for this field is **WBTADMIN**.
	✅ **Note** 　　All **Get** and **Set** names are case sensitive.
	Trap Destination **Server 1:**, **Server 2:**, **Server 3:**, and **Server 4:** are fields that supply the names or IP addresses of the servers to which the terminal sends SNMP traps. (Optional)

Table 36-1   SNMP Network Administration Dialog Box, Continued

Function	Description
Terminal Information	Use this group box to list information about terminals.
	Description Use this group box to describe a terminal. (Optional)
	Location Type the location of the terminal in this field.
	Contact Type the name of the administrator of the subject terminal in this field.
	Custom Use the following fields to type in any custom message associated with the subject terminal: • **Field 1** • **Field 2** • **Field 3**

The Upgrade Process

1. Ensure that the custom MIB (Management Information Base) is compiled by your SNMP manager using the current MIB.

   ☑ **Note**

   In order to initiate an SNMP upgrade, you must know the FTP or TFTP server's IP address or machine name, and the absolute path to the image on the FTP or TFTP server.

   ☑ **Note**

   In the custom MIB the enterprise number is 1.3.6.1.4.1.714.

2. Ensure thatthe **SNMP Update Enable** check box in the **SNMP** area of the **Terminal Properties Apps** tab is checked (by default it is checked/enabled).

3. Using the **SNMP/Network Administrator** dialog box, verify that the community and set community names for the terminal match the community and set community names in the SNMP manager.

> ✔ **Note**
>
> You can set the **Set Community** name for a terminal if you have DHCP enabled by setting DHCP Option **164** to the set community name your SNMP manager uses.

4. Using your SNMP manager:

   a. Go to 1.2.3.8.1.2 (wbt3UpDnLoadTable).

   b. Go to 1.2.3.8.1.2.1.2 (wbt3UpDnLoadID), user defined string.

> ✔ **Note**
>
> The above is used in traps to identify the download operation.

   c. Go to 1.2.3.8.1.2.1.3 (wbt3UpDnLoadOp), and set its value to 1 (Download).

   d. Go to 1.2.3.8.1.2.1.4 (wbt3UpDnLoadSrcFile), and set its value to the absolute path of the directory where the image file and params.ini are located.

   e. Go to 1.2.3.8.1.2.1.6 (wbt3UpDnLoadFileType), and set its value to 0 (Binary).

   f. Go to 1.2.3.8.1.2.1.7 (wbt3UpDnLoadProtocol), and set its value to 0 or 1 (FTP or TFTP).

   g. Go to 1.2.3.8.1.2.1.8 (wbt3UpDnLoadFServer), and set its value to the IP address or DNS name of the FTP or TFTP server.

   h. Go to 1.2.3.8.1.4 (wbt3SubmitLoadJob), and set its value to 1 (Ready).

Step 4h will initiate an SNMP upgrade to your terminal. If the download is configured properly, the new image will download and the terminal will reboot automatically.

Refer to Chapter 31, FTP Pull Firmware Upgrades, to view the dialog boxes that display during the process.

37 DHCP Firmware Upgrades

Using the Change DHCP Option IDs Dialog Box

Use the **Change DHCP Option IDs** dialog box to set up DHCP option IDs for terminal administration and upgrade. See Figure 37-1 for a view of this dialog box.

Your terminal uses DHCP and the information on the **Change DHCP Option IDs** dialog box to:

- Help establish ICA and RDP connections
- Perform automated firmware updates
- Help define terminal emulation connections
- Implement remote management of SNMP parameters

To invoke this dialog box:

1. Press the **F2** key.

2. Click on the **Apps** tab.

3. Click on the **Change DHCP Option...** command button.

Figure 37-1   Change DHCP Option IDs Dialog Box

> ✓ **Note**
> Option 158 is not supported yet. It is reserved for future
> use.

The following table describes the functions of this dialog box.

Table 37-1   Change DHCP Option IDs Dialog Box

Function	Description
Common Option IDs	Group box used to assign DHCP option IDs to common DHCP variables. The number in each field is the DHCP option ID. The following field titles are the DHCP variables: • **Remote Server** • **Logon User Name** • **Domain** • **Logon Password -** reserved for future use • **Command Line** • **Working Directory**
RDP Option ID	Group box used to set the following RDP option IDs: **Startup Application**
FTP Option IDs	Group box used to set the following FTP option IDs: • **File Server** • **File Root Path**
SNMP Option IDs	Group box used to set the following SNMP option IDs: • **Trap Server IP List** • **Set Community**
Terminal Emulation Option IDs	Group box used to set the following terminal emulation option IDs: • **Emulation Mode** • **Terminal ID**
Reset To Defaults	Click on this command button to reset all option IDs to the default values. **Note** The values shown in Figure 37-1 are the terminal default values.

The Upgrade Process

1. Press the **F2** key for the **Terminal Properties** dialog box.

2. Click on the **Network** tab.

3. Click on the **Obtain an IP Address From DHCP Server** radio button, if the function is not enabled.

4. Click on the **Apps** tab.

5. Click on the **DHCP Automatic Update Enable** check box on the **Apps** properties sheet, if the function is not enabled.

   ☑ **Note**

   You have now enabled the automatic DHCP function.
   You will also need to configure your DHCP option IDs.
   Make sure your DHCP options match the options on
   the DHCP server.

6. If you want to change the DHCP option ID values, click on the **Change DHCP Option...** command button.

7. Use the **Change Option IDs** dialog box to change options, then click on **OK** to save.

   ☑ **Note**

   Pay special attention to these FTP Option IDs
   functions: **File Server** (the location of the server where
   the firmware resides), and **File Root Path** (the location
   of the firmware). If they are not correct, the upgrade will
   fail.

   ☑ **Note**

   You will need the image and the params.ini files on the
   FTP server to do the upgrade.

8. Shut down the terminal. See "Shutting Down the Terminal" for more information.

Your terminal will automatically upgrade itself when it is turned on again.

Manual DHCP Firmware Upgrades

1. Follow instruction 1 through 3 and 5 through 8 in "Automatic Firmware Upgrades."

2. Click on the **Upgrade...** command button on the **Upgrade** properties sheet.

This will initiate the firmware upgrade. Once the upgrade is complete, the terminal will reboot to the **Setup Wizard**.

Client Security

38 Security Properties

Use the **Security** properties sheet to access security functions and global terminal functions. You can also use this sheet to set up terminal accounts. Figure 38-1 shows the **Security** properties sheet.

Using the Security Properties Sheet

To invoke the **Security** properties sheet:

1. Press **F2** to open the **Terminal Properties** dialog box.

2. Click on the **Security** tab.

Figure 38-1   Security Properties Sheet

The following table describes the functions of this properties sheet.

Table 38-1   Security Properties Sheet

Function	Description
Security Enable	This group is used to enable terminal security and restrict access connection configurations. It contains the following functions: **Security Enable** Click to enable terminal security and deactivate the **Hide Configure Tab** function. It forces a user to log in if autologin is not enabled. By default this function is disabled. Checking this box disables the **Hide Configure Tab** check box. Typically, when enabled user accounts would be established (**Add User** command button). Become effective when terminal is restarted. **Hide Configure Tab** Click to enable. This function hides the **Configure** tab in the **Connection Manager**. By default this function is disabled.
Failover Enable	Use this group to manipulate connection parameters. See "Failover" for more information. **Failover Enable** Click to enable the failover function. Failover allows the unit to try the next connection in a list if a current connection attempt (ping) is unsuccessful. Enabling this function activates **Multiple Connect** and **Verbose** (see below) functions. By default this function is disabled. **Multiple Connect** Failover must be enabled before you can access this function. The unit will attempt a connection to all servers listed in the **Connection Manager** starting from where the first connection is launched. **PingBeforeConnect** When checked, the server is pinged before a connection is attempted to avoid losing time waiting for failure responses.

Table 38-1   Security Properties Sheet, Continued

Function	Description
	Verbose When selected, a **Failover Log Window** is displayed reporting details about the connection process.
AutoLogin Enable	This group is used to configure automatic login parameters. See "Autologin and Autoconnect" for more information about autologin. **AutoLogin Enable** Select to enable the function. AutoLogin is enabled only for the user name currently highlighted in the **User Name** list box. Enabling the autologin function activates the **Single Button Connect** check box. By default the AutoLogin function is disabled. **User Name** This field is activated by enabling **AutoLogin Enable**. By default the field is blank. **Single Button Connect** Select to enable the function. See the "Single Button Connect" in "Terminal Login" for more information. By default the function is not enabled.
DHCP Connection Enable	Use this group to access the DHCP connection list. It contains the following functions: **DHCP Connection Enable** Select to enable automatic DHCP connection. Enabling this function activates the **Connection Name and Type** list. This function is enabled by default if DHCP is enabled (**Network** dialog box). **Connection Name and Type** A scroll list that displays all connections available to your terminal. You must select the connection that will use information supplied by DHCP. By default this function is **Default ICA Connection {ICA}**.

Table 38-1   Security Properties Sheet, Continued

Function	Description
Auto Fail Recovery	Select the check box to enable the function. Auto Fail Recovery is a function that checks the validity of a disconnect, and closes down a connection if the disconnect is valid. By default the function is not selected. It reconnects to a session when you log off or end an ICA or RDP session. If **DHCP Connection Enable** is checked (for ICA or RDP), you must have a server that can respond to ping commands set in the DHCP Server Options or it will not reconnect (per RDP- or ICA-assigned options) the user.
Reset Hot Key Enable	Check this box to enable hot key reset.

> ☑ **Note**
> The hot key reset function must be performed as directed by the system administrator.

Function	Description
User Accounts	This is a list box displaying:

Account Name
Lists the account names.

Privilege
Lists the privilege type, either **Admin**, **User**, or **Guest**.

AutoStart
Lists the autostart permission, either **Yes** or **No**. Interacts with **Connection Startup** dialog box selection (see "Connection Configuration").

AutoLogin
Lists the autologin permission, either **Yes** or **No**. For more information about user accounts see "Terminal Accounts."

Function	Description
Add User	See "Adding Terminal Accounts."
Modify User	See "Modifying and Deleting Terminal Accounts."
Delete User	See "Modifying and Deleting Terminal Accounts."

39 Terminal Accounts

A terminal account is a group of connection and configuration parameters organized into an account and assigned to a terminal user. Terminal accounts can include specific connections, privileges, password protection, Autologin and/or Autostart and Single Button Connect functions. The three types of accounts are:

- **Guest**
- **User**
- **Administrator**

Guest Accounts

The **Guest** account has the fewest privileges. With this account you can not:

- Configure a connection unless enabled by the administrator
- Gain access to the password function or effect any changes to security

With this account type you can access the following **Terminal Properties** sheets:

- **General**
- **Input**
- **Display**
- **SysInfo**

User Accounts

With a **User** account, you will not be able to configure the connection for the account unless enabled by the administrator. You will be able to access the password function to change your password (if this privilege is granted). You can also access the following **Terminal Properties** sheets:

*   **General**
*   **Input**
*   **Display**
*   **Network**
*   **Printers**
*   **Apps**
*   **Devices**
*   **SysInfo**

Administrator Accounts

The **Administrator** account has the greatest amount of privileges. With this account you can:

*   Use **Enable Password Change** (to permit users to change the passwords to their accounts)
*   Add, modify, and delete accounts, and configure or reconfigure the connections for any account
*   Use all the other functions of the terminal

Using Terminal Accounts

Terminal accounts are created and managed by using the **Add User...**, and **Modify User...** command buttons. Terminal accounts are deleted using the **Delete User...** command button. These buttons are found on the **Security** properties sheet.

> ☑ **Note**
>
> There is a built-in account called **Administrator**. It can not be deleted or revised. The account's password can be changed and is **<blank>** by default. For security purposes, it is recommended that the default administrator password be changed.

For more information about terminal accounts, see:
- "Security Properties"
- "Creating Terminal Accounts"
- "Modifying and Deleting Terminal Accounts"

40 Creating Terminal Accounts

The **Add User Account** dialog box is used to create terminal accounts. The following figure shows this dialog box.

Using the Add User Account Dialog Box

Use the **Add User Account** dialog box to set up the parameters for new terminal accounts. To invoke this dialog box:

1. Press **F2** while in the **Connection Manager**.

2. Click on the **Security** tab in the **Terminal Properties** dialog box.

3. Click on the **Add User...** command button.

Figure 40-1   Add User Account Dialog Box

The following table describes the functions of the **Add User Account** dialog box.

Table 40-1   Add User Account Dialog Box

Function	Description
Enable Password Change	Group box used to set up password functions. ✔ **Note** The fields of this group box are limited to 20 characters or less. **Enable Password Change** Click to enable. Enabling the function will allow the user to change a password. This function is activated by assigning the **User** account privilege. By default **Enable Password Change** is deactivated. **User Name** Type in the new user name. By default the field is blank. **Password** Type in the password. By default the field is blank. **Confirm Password** Type in the password again. By default the field is blank.
Available Connections	This is a list box displaying all the terminal's connections. It contains: **Available Connections** This list shows the connections available for terminal accounts. **Type** This section of the list displays the connection type for each connection: • **ICA** • **DialUp** • **RDP** • **TEC** (terminal emulation) • **Web**
Assign	Click on this command button to copy a connection from **Available Connections** to **Connection Name**. You must first select (highlight) the connection you want to copy.

Table 40-1   Add User Account Dialog Box, Continued

Function	Description
Unassign	Use this button to remove a connection from **Connection Name**. You must first select the connection you want to remove.
Up and **Down**	Select a connection and click on the **Up** or **Down** command button to move it up or down one place in the **Connection Name** list. If there are no connections listed in **Connection Name**, the command buttons are deactivated.
Toggle AutoStart	Click on this command button to toggle between **Yes** and **No**. These two choices are listed under **AutoStart** in **Connection Name**.
Connection Name	List box displaying connections. **Note** The first connection in the list is used by the Single Button Connect feature. Use the **Up** and **Down** buttons to rearrange the list. **Connection Name** This list shows the connections available to a terminal account. **Type** This section of the list displays the connection type of each connection. See **Type** above. **AutoStart** This section of the list displays whether the connection will or will not start automatically.
Account Privilege	Group box used to assign an account an account privilege: **Administrator** Click this radio button to assign the privileges of administrator to an account. If this function is enabled: • All connections in **Available Connections** are automatically assigned to **Connection Name** for use. • **Enable Password Change** is deactivated but enabled. Administrators always have the ability to change passwords.

Table 40-1   Add User Account Dialog Box, Continued

Function	Description
	User Click this radio button to assign the privilege of user to an account. If **User** is enabled, **Enable Password Change** is activated. Administrators can give users the ability to change their password.
	Guest (default) Click this radio button to assign the privilege of guest to an account. If **Guest** is enabled, then **Enable Password Change** is deactivated. Users with this account type can not change passwords.
Allow Access to Connection Manager	Select this check box to allow a user account to have access to the **Configure** tab on the **Connection Manager**. By default the check box is not selected. The check box is disabled for an administrator account.

41 Modifying and Deleting Terminal Accounts

The **Modify User Account** dialog box is used to modify and delete terminal accounts. The **Delete** command button, discussed later in Deleting Terminal Accounts, is used to delete terminal accounts. Figure 41-1 shows the **Modify User Account** dialog box.

> ☑ **Note**
> The account name for the account being modified shows in the dialog box title bar.

Using the Modify User Account Dialog Box

To invoke this dialog box:

1. Press **F2** from the **Connection Manager**.

2. Click on the **Security** tab in the **Terminal Properties** dialog box.

3. Highlight the account to be modified and click on the **Modify User...** command button.

Figure 41-1   Modify User Account Dialog Box

The following table describes the functions of the **Modify User Account** dialog box.

Table 41-1   Modify User Account Dialog Box

Function	Description
Enable Password Change	Group box used to set up password functions.
	✔ **Note** The fields of this group box are limited to 20 characters or less.
	Enable Password Change Click to enable. Enabling the function will allow the user to change the account's password. This function is activated by assigning the account **User** account privilege. By default **Enable Password Change** is deactivated.
	User Name Displays the user name. By default the text box is deactivated.
	Password Type in the password. By default the text box is blank.
	Confirm Password Type in the password again. By default the text box is blank.
Available Connections	This is a list box displaying all the terminal's connections. It contains:
	Available Connections This list shows the connections available for terminal accounts.
	Type This section of the list displays the connection type for each connection:
	• **ICA** • **DialUp** • **RDP** • **TEC** (terminal emulation) • **Web**

Table 41-1 Modify User Account Dialog Box, Continued

Function	Description
Assign	Click on this command button to copy a connection from **Available Connections** to **Connection Name**. You must first select to highlight the connection you want to copy.
Unassign	Use this button to delete a connection from **Connection Name**. You must first select to highlight the connection you want to delete.
Up and **Down**	Select a connection and click on the **Up** or **Down** command button to move it up or down one place in the **Connection Name** list. If there are no connections listed in **Connection Name**, the command buttons are deactivated.
Toggle AutoStart	Click on this command button to toggle between **Yes** and **No**. These two choices are listed under **AutoStart** in **Connection Name**.
Connection Name	List box displaying connections. ✓ **Note** The first connection in the list is used by the Single Button Connect feature. Use the **Up** and **Down** buttons to rearrange the list. **Connection Name** This list shows the connections available to a terminal account. **Type** This section of the list displays the connection type of each connection. See **Type** above. **AutoStart** This section of the list displays whether the connection will or will not start automatically.

Table 41-1   Modify User Account Dialog Box, Continued

Function	Description
	✅ **Note** **Connection Name**, **Type** and **AutoStart** comprise a list box. When the Modify User dialog box displays, what appears in this list box is the connection type in the last account that you created.
Account Privilege	Group box used to assign an account account privileges: **Administrator** Click this radio button to assign the privileges of administrator to an account. If this function is enabled: • All connections in **Available Connections** are automatically assigned to **Connection Name** for use. • **Enable Password Change** is deactivated but enabled. Administrators always have the ability to change passwords. **User** Click this radio button to assign the privilege of user to an account. If **User** is enabled, **Enable Password Change** is activated. Administrators can give Users the ability to change their password. **Guest** Click this radio button to assign the privilege of guest to an account. If **Guest** is enabled, **Enable Password Change** is deactivated. Users with this account type can not change passwords.
Allow Access to Connection Manager	Click on this check box to allow the user of the account to have access to the **Connection Manager**. The function will deactivate when you set up an account as an administrator account. By default the function is disabled.

Deleting Terminal Accounts

Terminal accounts can be deleted from the **User Accounts** list on the **Security** properties sheet. To delete an account:

> ⊠ **Caution**
>
> You can not recover a deleted account.

1. Click on the account that you want to delete in the **User Accounts** list.

2. Click on the **Delete User...** command button.

The following dialog box will display.

Figure 41-2   Delete User Account Confirmation Dialog Box

To delete the listed account, click on the **Yes** command button. The terminal account is removed from the database.
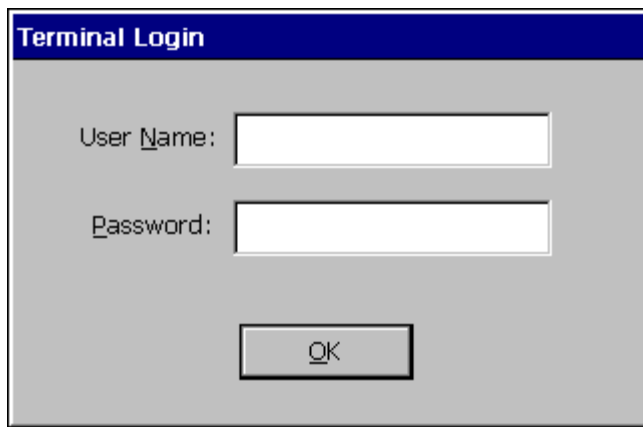
> ✔ **Note**
>
> You cannot delete the built-in **Administrator** account.

42 Terminal Login

Terminal login is used as a terminal security measure. Only users with the correct **User Name** and **Password** will be able to log into the terminal. Figure 42-1 shows the **Terminal Login** dialog box.

Figure 42-1   Terminal Login Dialog Box

Logging Into the Terminal

To use the login feature:

1. Enable security. See "Security Properties" for more details.

2. Log out of the terminal by clicking on the **Shut Down...** command button in the **Connection Manager**.

3. Click on the **Logout** radio button in the **Shutdown Window** dialog box.

4. Click on the **OK** command button.

The **Terminal Login** dialog box displays. In this dialog box:

1. Type in the correct **User Name** and **Password**.

2. Click on **OK** to log into the terminal again.

Autologin and Autoconnect

Autologin

The autologin feature is an automatic login function that does not use a dialog box as a prompt to log you into your terminal again. Whether you restart or log off, the **AutoLogin** dialog box displays, counts five seconds, then returns you to the **Connection Manager**.

This is a global function, so it does not matter what other functions you have enabled. Autologin is associated with an account and only one account can have autologin associated with it. It will always act in the same manner. The following figure shows the **AutoLogin** dialog box.

Figure 42-2   Autologin Dialog Box
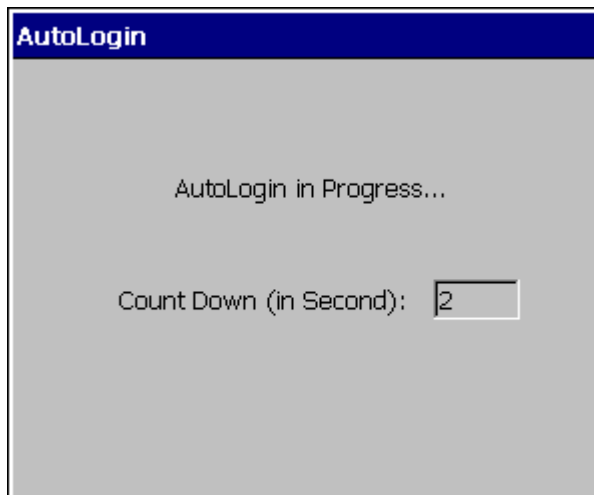
AutoStart

AutoStart is a function that automatically connects you once you have logged into your terminal. Autostart can be added to any defined connection in any account. Each user can have different and/or multiple autostart connections. To use the function:

1. Enable security.

2. Select the account you want Autostart added to and click on the **Modify User...** command button.

3. Use the **Modify User** dialog box to add Autostart.

4. Restart or log off of your terminal.

The **Terminal Login** dialog box displays. Use it to log into your terminal. The **AutoStart** function will then automatically connect you to the connection that has autostart associated with it.

See "Shutting Down the Terminal" for more details about logging into the terminal.

Single Button Connect

The **Single Button Connect** feature is an automatic login function that uses a dialog box as a prompt to log you into your terminal again after logging out. Figure 42-3 shows this dialog box.

Single button connect is a global and automatic function, and is not included as a terminal account parameter. This function will:

1. Log you into your terminal using the account that has autologin associated with it.

2. Make the first connection listed in the **Connection Name** list in the **Modify User Account** dialog box (unless another connection in the list has been made with Autostart).

Figure 42-3   Single Button Connect Dialog Box
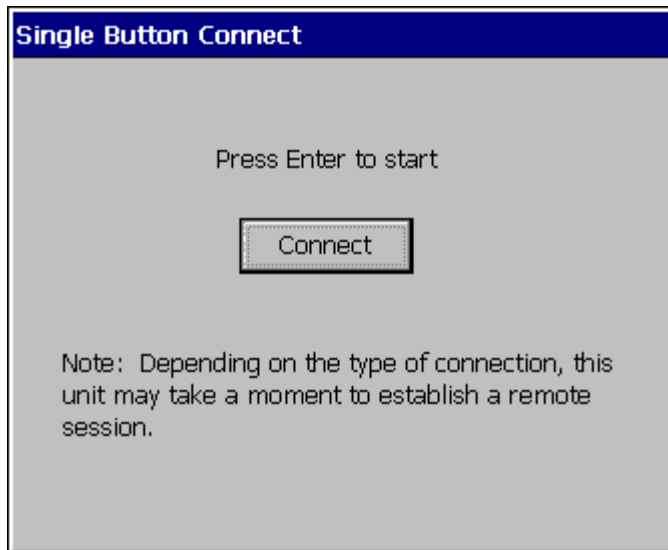
To enable this function:

1. Press **F2** to invoke the **Terminal Properties** dialog box.

2. Click on the **Security** tab to invoke the **Security** properties sheet.

3. Highlight the user's name in **User Accounts**.

4. Click on the **AutoLogin Enable** check box to enable the function.

5. Click on the **Single Button Connect** check box to enable the function.

6. Click on **OK**.

7. Click on the **Shut Down...** command button in the **Connection Manager**.

8. Click on the **Logout** radio button to log out of the terminal.

The **Single Button Connect** dialog box appears. Click on **Connect** to log into the terminal again.

43 Failover

Failover is a connection feature that is enabled using the **Security** properties sheet. It forces the terminal to "ping" the intended device before making a connection to it. The function operates when **FailOver Enable** is enabled on the **Security** properties sheet. Failover is global and wholly automatic to the terminal. It will work regardless of what connection you are trying to make, or what type of account under which you are logged in. See "Security Properties" for more information about this function and how to invoke the properties sheet.

✔ **Note**

> Ping (Packet Internet Groper) is a network utility. It tests communication with nodes in a network by sending packets to each selected node. Ping then waits to receive the echo response from that selected node.

Failover operates as follows:

✔ **Note**

> Failover does not support PNLite connections.

1. The terminal pings the intended connection, to determine whether or not it is available.

2. If pinging the intended device fails, the terminal pings each successive connection in the list.

3. For each connection:

   a. If ping is successful, the connection is made.

   b. If ping is not successful, the terminal pings the next connection.

   c. If the next connection is a serial or IE connection, ping will stop. Ping will not work on a serial or IE connection. Failover will not continue after encountering a serial or IE connection, but will launch the serial or IE connection if it is valid.

If failover pings all the connections in the list and a connection is not made, the function stops. The following error message displays.

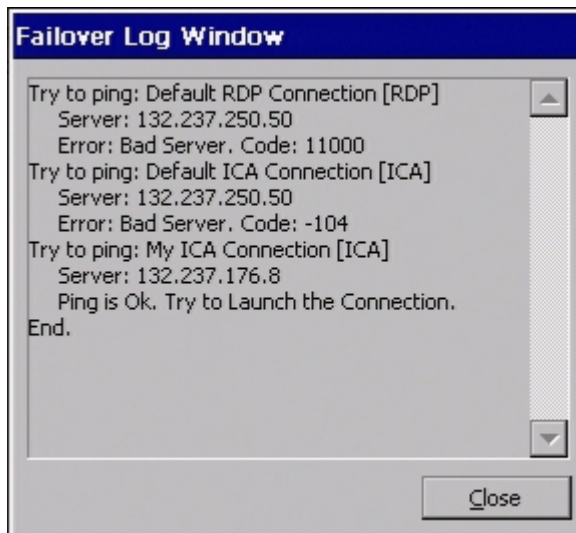**Figure 43-1   Failover Message Box**
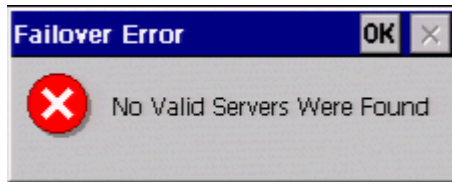
Once failover is finished, the **Failover Log Window** dialog box displays. Figure 43-2 shows this dialog box.

✔ **Note**

> The **Verbose** function on the **Security** properties sheet must be enabled for the **Failover Log Window** dialog box to display.

Figure 43-2   Failover Log Window Dialog Box

The **Failover Log Window** is a list of all the connections that were pinged. The list reports both successful and unsuccessful pings.

Getting Help

44 Windows-based Terminal Specifications

Specifications for the Windows-based terminals covered in this manual are listed in the following tables:

- Model T1000, Table 44-1
- Model T1010, Table 44-2

Table 44-1   Winterm Model T1000 Terminal Specifications

Description	Specification
Terminal Type	Modular Windows-based terminal
	• Integrated Microsoft RDP and Citrix ICA 3 protocols and terminal personalities (standard)
Display Support[1]	• VESA monitor support, with DDC for automatic setting of resolution and refresh rate
	• Indexed or true-color outputs for CRT
	• Colors: 16, 256 (8-bit), or 65,536 (16-bit)
	• Video: selectable up to 1280x1024
	• Flicker-free, selectable up to 85 Hz noninterlaced refresh rate
Audio[1]	• Output: 1/8-in. mini, full 16-bit stereo, 44 KHz sample rate
	• Input: 1/8-inch mini microphone (not currently supported)[2]
Input/Output/Peripheral Support	• Keyboard: enhanced PS/2-type with Windows keys (104 keys) included[3]; low-profile design with two-position tilt; 5-ft (1.5-m) cable
	• Mouse: PS/2-type mouse included
	• Local and/or network printers on ICA (virtual port redirection ready)
	• VGA-type video output (DB-15)

Table 44-1   Winterm Model T1000 Terminal Specifications, Continued

Description	Specification
Networking	• TCP/IP with DNS and DHCP • 10/100BaseT Fast Ethernet, twisted pair (RJ-45) • Point-to-Point Protocol (PPP) • Multiple master browser support on ICA • Supports Citrix load balancing on ICA • SNMP support allows configuration of terminal settings, reporting of terminal configuration and attached devices, traps • DHCP support for automatic firmware upgrades and unit configuration
Communications	• Two serial ports: 16C550 UART (fifo) compatible, up to 115.2 kBaud • One parallel port: bi-directional Centronics-compatible, DB-25 • PCMCIA card bus • ICA remote dial-up via internal (PCMCIA) or external modem • Two USB Ports[4]
Communication Protocols/ Terminal Personalities Supported	• RDP resident • ICA 3 protocol resident • See Table 16-1 for emulations supported
Server OS Compatibility/ Support	• Microsoft Windows 2000 Server • Microsoft Windows NT Server 4.0, Terminal Server Edition • Citrix WinFrame • Citrix MetaFrame, the Citrix enhancement to Microsoft Windows NT Server 4.0, Terminal Server Edition • Citrix Device Services (included)

Table 44-1   Winterm Model T1000 Terminal Specifications, Continued

Description	Specification
Setup and Configuration	User Interface • Local boot • Start-up wizard for simple set-up • See Table 3-1 for keyboard languages supported Configuration • Configurable automatic login • Individual user account customization (scripting)
Physical Characteristics	• Height: 8.9 in. (22.6 cm) • Width at base: 3.9 inches (9.9 cm) • Depth: 6.9 in. (17.4 cm) • Shipping weight: 12.5 lbs (5.5 kg)
Environment	Temperature range • Powered on: 32° to 104°F (10° to 40°C) • Powered off: –14° to 140°F (–10° to 60°C) • Convection cooling, fanless design Humidity • 20 to 80% noncondensing Operating altitude range • 0 to 10,000 ft (0 to 3,050 m)
Power	• Worldwide auto-sensing 90-264 V ac, 47-63 Hz • Energy-saving automatic power-down

Table 44-1   Winterm Model T1000 Terminal Specifications, Continued

Description	Specification
Regulatory Compliance	Ergonomics
	• German ZH1/618
	• EN29241-3 approved
	• EPA Energy Star
	Safety
	• UL 1950, CSA 950
	• TÜV-GS (EN60 950) approved
	RF Interference
	• FCC Class B
	• CE mark
	• EN55022B
	• VCCI

Footnotes:
[1]Monitor, speakers, and microphone not included.
[2]Microphone will be supported in a future software release.
[3]Keyboard not included with international models.
[4]For supported peripherals, rever to http://www.compaq.com.

⚠ **Warning**
Your Model T1000 terminal may contain a battery. There is a danger of explosion if the battery is incorrectly replaced. Replace the battery with only the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Table 44-2   Winterm Model T1010 Terminal Specifications

Description	Specification
Terminal Type	Modular Windows-based Terminal
	• Integrated Microsoft RDP and Citrix ICA 3 protocols and terminal personalities (standard)
Display Support[1]	• VESA monitor support, with DDC for automatic setting of resolution and refresh rate
	• Colors: 16, 256 (8-bit), or 65,536 (16-bit)
	• Video: selectable up to 1280x1024
	• Flicker-free, selectable up to 85 Hz noninterlaced refresh rate
Audio[1]	• Output: 1/8-in. mini, full 16-bit stereo, 44 KHz sample rate
	• Input: 1/8-in. mini microphone (not currently supported)[2]
Input/Output/Peripheral Support	• Keyboard: enhanced PS/2-type with Windows keys (104 keys) included[3]; low profile design with two-position tilt; 5-ft (1.5-m) cable
	• Mouse: PS/2-type mouse included
	• Local and/or network printers on ICA (virtual port redirection ready)
	• VGA-type video output (DB-15)
Networking	• TCP/IP with DNS and DHCP
	• 10/100BaseT Fast Ethernet, twisted pair (RJ-45)
	• Point-to-Point Protocol (PPP)
	• Multiple master browser support on ICA
	• Supports Citrix load balancing on ICA
	• SNMP support allows configuration of terminal settings, reporting of terminal configuration and attached devices, traps
	• DHCP support for automatic firmware upgrades and unit configuration

Table 44-2   Winterm Model T1010 Terminal Specifications, Continued

Description	Specification
Communications	• Two serial ports: 16C550 UART (fifo) compatible, up to 115.2 kBaud • One parallel port: bi-directional Centronics-compatible, DB-25 • PCMCIA type II slot • One USB port[4] • ICA remote dial-up via internal (PCMCIA) or external modem
Communication Protocols/ Terminal Emulations Supported	• RDP resident • ICA 3 protocol resident • See Table 16-1 for emulations supported
Server OS Compatibility/ Support	• Microsoft Windows 2000 Server • Microsoft Windows NT Server 4.0, Terminal Server Edition • Citrix WinFrame • Citrix MetaFrame, the Citrix enhancement to Microsoft Windows NT Server 4.0, Terminal Server Edition • Citrix Device Services (included)
Setup and Configuration	User Interface • Local boot • Start-up wizard for simple set-up • See Table 3-1 for keyboard languages supported Configuration • Configurable automatic login • Individual user account customization (scripting)
Physical Characteristics	• Height: 8.9 in. (226 mm) • Width: 2.4 in. (60 mm) • Depth: 6.9 in. (174 mm) • Shipping weight: 12.5 lbs (5.5 kg)

Table 44-2   Winterm Model T1010 Terminal Specifications, Continued

Description	Specification
Environment	Temperature Range • Powered on: 32° to 104°F (0° to 40°C) • Powered off: –14° to 140°F (–10° to 60°C) • Convection cooling, fanless design Humidity • 20 to 80% noncondensing Operating Altitude Range • 0 to 10,000 feet (0 to 3,050 meters)
Power	• Worldwide auto-sensing 90-264 V ac, 47-63 Hz • Energy-saving automatic power-down
Regulatory Compliance	Ergonomics • German ZH1/618 • EN29241-3 approved • EPA Energy Star Safety • UL 1950, CSA 950 • TÜV-GS approved • EN 60950 approved RF Interference • FCC Class B • CE mark • EN55022B • VCCI

Footnotes:
[1]Monitor or speakers and microphone not included.
[2]Firmware to support this feature will be available in a future software release.
[3]Keyboard not included with international models.
[4]For supported peripherals, refer to http://www.compaq.com.

45 **How to...**

Turn off Autologin:

1. Press **F2** on your keyboard to invoke the **Terminal Properties** dialog box.
2. Click on the **Security** tab in the **Terminal Properties** dialog box.
3. Click (to uncheck) the **AutoLogin Enable** check box.
4. Click on the **OK** command button on the **Security** properties sheet to return to **Connection Manager**.

Check your terminal's build number and firmware revision:

1. Press **F2** on your keyboard to invoke the **Terminal Properties** dialog box.
2. Read the build number and firmware revision listed in **Version:** on the **General** properties sheet.
3. Click on any button on the **General** properties sheet to return to **Connection Manager**.

Adjust your mouse speed or change whether it is right- or left-handed:

1. Press **F2** on your keyboard to invoke the **Terminal Properties** dialog box.
2. Click on the **Input** tab in the **Terminal Properties** dialog box.
3. Click on the **Properties** command button in the **Mouse** group box on the **Input** properties sheet. This opens the **Mouse Properties** dialog box.

4. Use the **Button Configuration** radio buttons to select either **Right-handed** (default) or **Left-handed**.

5. Use the sliders in the **Pointer Acceleration** and **Pointer Speed** boxes to adjust your mouse speed.

6. Click on the **OK** command button on the **Mouse Properties** dialog box and click on **Close** on the **Terminal Properties** dialog box to return to **Connection Manager**.

Make a basic PPP connection:

1. Click on the **Configure** tab in the **Connection Manager** to invoke the **Configure** properties sheet.

2. Click on the **Add** command button on the **Configure** properties sheet to invoke the **New Connection** dialog box.

3. Select from the scroll list **Dial-Up Client**, then click **OK** to invoke the **Dial-Up Configuration Wizard**.

4. Set the minimum parameters for a dial up connection:

    a. Enter a name for the connection in **Enter a Description for Dial-Up Connection:** text box in the first dialog box of the wizard.

    b. Enter a telephone number in **Telephone Number** in the second dialog box of the wizard.

    c. Select in the second dialog box of the wizard:
        •**Serial Port** (modem type)
        •**Use Country Code** and **Area Code** (if appropriate)
        •Appropriate **Local Settings** and **Dialing Patterns** in the **Dialing Properties** dialog box (invoked by the **Dialing Properties** command button)
        •Appropriate **Port Settings** and **Call Options** in the **Device Properties** dialog box (invoked by the **Configure** command button)

    d. Select a connection from the **Select Connection Below to Launch After Dialing In** list box in the third dialog box of the wizard.

    e. Click on the **Finish** command button to return to the **Connection Manager**.

The connection will display in the **Connections** list.

Switch between multiple sessions:

- Press **Ctrl+Alt+↑** to proceed to the previous session.
- Press **Ctrl+Alt+↓** to proceed to the next session.

Reset your terminal:

1. Press **F2** on your keyboard to invoke the **Terminal Properties** dialog box.
2. Click on (to check) the **Reset the Terminal to Factory Default Property Settings** check box.
3. Click on **Yes** in the **System Settings Change** dialog box.

The terminal is reset to factory defaults.

> ☑ **Note**
>
> If the above reset procedure fails, call technical support at Compaq (800-OKCOMPAQ) for instructions on using a hot-key reset procedure.

Determine the size of the onboard memory:

1. Press **F2** on your keyboard to invoke the **Terminal Properties** dialog box.
2. Read the firmware revision number listed in **RAM:** on the **General** properties sheet.
3. Click on the **Close** command button on the **General** properties sheet to return to **Connection Manager**.

Configure a local printer:

If you are using the Winframe 1.7/ICA platform:

1. Log in to your WinFrame server.

2. Click on **Print Manager** in **Program Manager**.

3. Click on **Connect to Printer** on the **Printer** menu.

4. Click on **Client Network**, then **Client** on the **Shared Printer** menu.

5. Select your <clientname#port>, then click on **OK**.

> ☑ **Note**
>
> A **Use Printer Configuration Utility** check box is encountered in two places: **Connection Manager | Edit | Edit Connection Details | Options tab** and **Connection Manager | Add |** Wizard leading to **Printing, Compression, Cache, Encryption and Sound** dialog box. The box is checked by default. Uncheck the box if you desire to use the standard Windows printer setup. Also un-check the box for CDS printing.

If you are using the MetaFrame 1.0/ICA platform:

1. Log in to your MetaFrame server.

2. Click on **My Computer** in the **ICA Session** dialog box.

3. Click on **Printers**, then **Add Printer**.

4. Select **Network Printer Server**, then click **Next**.

5. Click on **Client Network**, then **Client** in the **Shared Printers** dialog box.

6. Select your <clientname#port>, then click on **OK**.

7. Click **Next**, then **Finish**.

If you are using a WinFrame 1.8 or MetaFrame 1.8/ICA platform:

1. Log in to your Citrix server.

2. If it is a MetaFrame server:

   a. Click on **Start**, then **Programs**.

   b. Click on **MetaFrame**, then **Tools**.

   c. Click on **ICA Client Printer Configuration**.

3. If it is a WinFrame server:

   a. Click on **ICA Client Printer Configuration** in the **Administrative Tools** program group in the **Program Manager.**

   b. Click on **New** on the **Printer** menu to display the **Add ICA Client Printer** wizard.

   c. Follow the steps of the wizard to add your local printer.

46 Terminal Port Pin Assignments

The following two figures show the pin assignments for the serial and parallel ports. These ports are located on the back panel of your terminal. See Terminal Installation for information about terminal back panels.

Figure 46-1   Serial Port

	Pin	Signal Name	Pin	
	1	Carrier Detect (DCD)	1	
	2	Receive Data (RX)	2	
	3	Transmit (TX)	3	
Terminal Com Port	4	Data Terminal Ready (DTR)	4	Server Com Port
	5	Signal Ground	5	
	6	Data Set Ready (DSR)	6	
	7	Request to Send (RTS)	7	
	8	Clear to Send (CTS)	8	
	9	Ring Indicator (RI)	9	

DB-9M

1   5

6   9
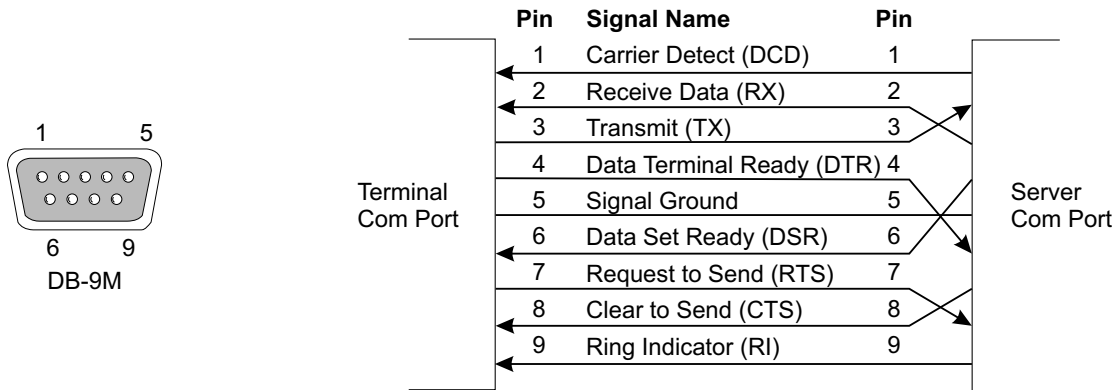
Figure 46-2   Parallel Port (EPP/SPP)

Pin	Signal Name	
1	- Strobe	1
2	+ Data Bits 0	2
3	+ Data Bits 1	3
4	+ Data Bits 2	4
5	+ Data Bits 3	5
6	+ Data Bits 4	6
7	+ Data Bits 5	7
8	+ Data Bits 6	8
9	+ Data Bits 7	9
10	- Acknowledge	10
11	+ Busy	11
12	+ Paper End	12
13	+ Slect	13
14	- Auto Feed	14
15	- Error	15
16	- Initialize	16
17	- Select Input	17
18-25	Ground	18-25

13   **1**

25   **14**

DB-25F

WBT Parallel Port
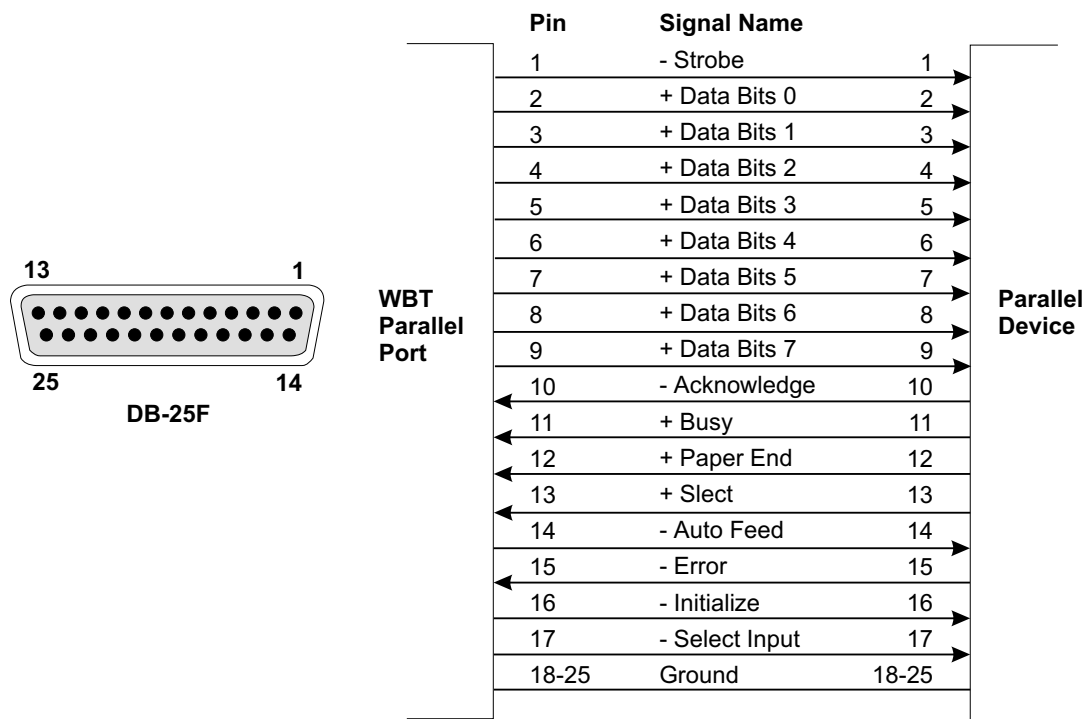
Parallel Device

☑ **Note**

The pin assignments for Terminal Parallel Port above are Centronics-compatible. The pin assignments for Parallel Device above are the standard pin assignments for a parallel device.

47 Terminal Connector Pin Assignments

The following figure shows the pin assignments for the 10Base-T and 100Base-T connector. This connector is located on the back panel of your terminal. See "Terminal Features" for information about the back panel.

☑ **Note**

It is recommended that you use Category 5 twisted-pair cable to connect your terminal to a hub.

Figure 47-1   10Base-T and 100Base-T Connector

Pin	Signal Name
1	+Transmit Detect
2	-Transmit Detect
3	+Receive Detect
6	- Receive Detect

Terminal 10Base-T Connector

Hub

1   8
RJ-45
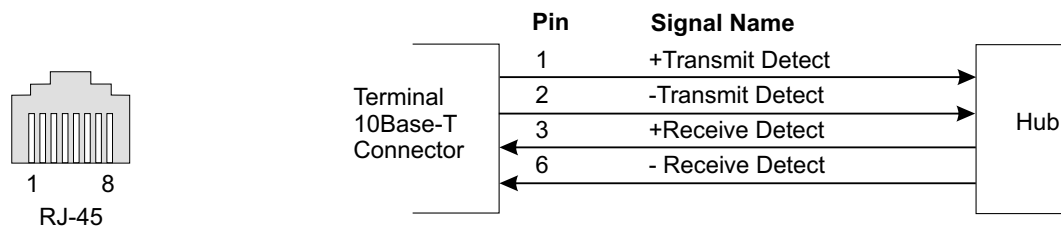
The following figure lists the connector pin assignments for the terminal's VGA connector. This connector is located on the back panel of your terminal. See "Terminal Features" for information about the back panel.

Figure 47-2   VGA Connector

Pin	Signal Name
1	Red Video
2	Green Video
3	Blue Video
4	No Connection
5	Ground
6	Red Video Ground
7	Green Video Ground
8	Blue Video Ground
9	No Connection
10	Sync Ground
11	No Connection
12	No Connection
13	HSYNC
14	VSYNC
15	No Connection

Video Signal Source

Monitor Video Connector

5   1
10   6
15   11
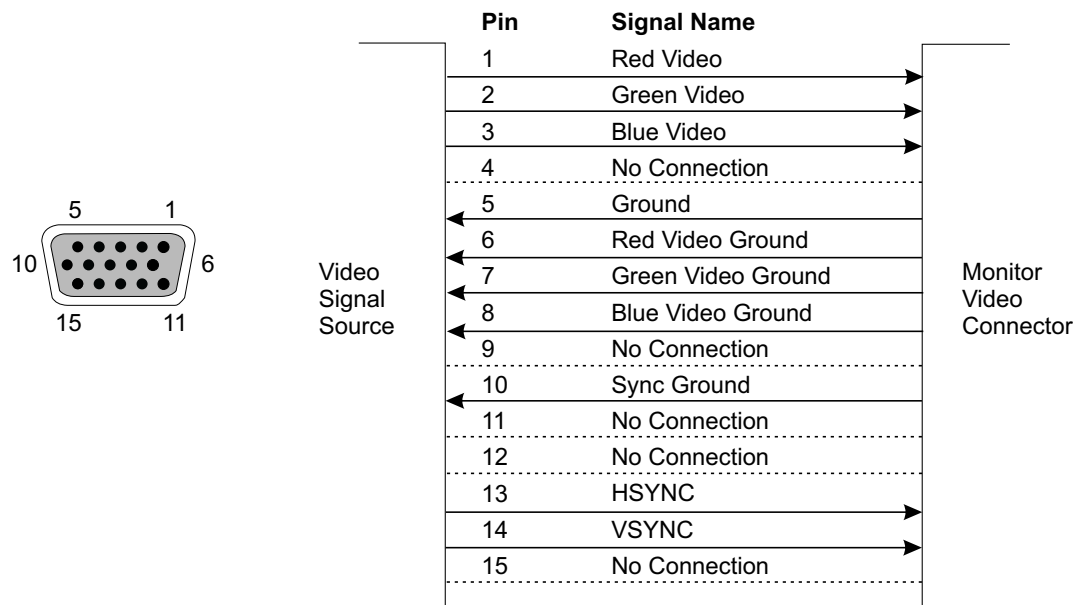
48 Null Modem Cable Pin Assignments

Table 48-1 outlines the pin assignments for a 9-pin serial port to a 25-pin serial port null modem cable.

Table 48-1   Null Modem Cable Pin Assignments

25 Pin	9 Pin
2 (transmit data)	2 (receive data)
3 (receive data)	3 (transmit data)
4 (request to send)	8 (clear to send)
5 (clear to send)	7 (request to send)
6, 8 (data set ready, carrier detect)	4 (data terminal ready)
7 (ground)	5 (ground)
20 (data terminal ready)	6, 1 (data set ready, carrier detect)

☑ **Note**

All other pins on either connector of the cable are not used.

49 Modem AT Commands

The tables of this section list typical modem AT command sets.

Table 49-1   AT Commands with No Lead-in Character

Command	Description
B, B0	ITU-T (CCITT) V.22 mode when at 1200 bps; V.21 at 300 bps
E1	Enable character echo to terminal in command mode
H, H0	Go on-hook (hang up)
N1	Connection speed set to highest possible DCE rate, Automode
Q, Q0	Modem returns result codes (Quiet disabled)
T	Tone dialing
V1	Full-word result codes (Verbose enabled)
W2	Negotiation progress codes disabled. Result code is DCE rate
X4	Modem recognizes dialtone and busy, CONNECT nnnn result code enabled
Y, Y0	Disable long-space disconnect
Z, Z0	Reset modem and recall User Profile 0

Table 49-2   AT Commands Beginning with "&"

Command	Description
&B1	Disable port rate adjust
&C1	Carrier detect follows data carrier
&D2	Hang up and go to command mode during On-to-Off DTR transition
&F, &F0	Recall factory settings as active configuration
&M0	Asynchronous mode
&N, &N0	Microcom QX/4232hs-compatible numeric result codes displayed
&Q5	Error Correction Mode V.42=> MNP=> Async
&T4	Grant request from remote for remote digital loopback test
&U1	Data compression enabled
&V	View active configuration, profiles (0,1), and numbers
&W, &W0	Save active configuration as User Profile 0
&Y, &Y0	Recall User Profile 0 on power-up

Table 49-3   AT Commands Beginning with "\"

Command	Description
\A3	Maximum MNP block size = 256 characters
\G, \G0	Disable port flow control DCE to DCE
\J, \J0	Disable port rate adjust
\L, \L0	MNP stream link
\N7	Set Auto-reliable mode (LAPM with fallback to MNP, then to normal)

Table 49-3   AT Commands Beginning with "\", Continued

Command	Description
\Q3	Bidirectional hardware flow control
\S	Display current Configuration, Long Version
\V, \V0	Disable /REL connect codes
\X, \X0	XON/XOFF pass-through disabled

Table 49-4   AT Commands Beginning with "%"

Command	Description
%C1	Data compression requested (V.42bis in LAPM, MNP5 in MNP)
%E, %E0	Disable Auto-retrain
%L	Report Line Signal Level in -dBm
%Q	Report Line Signal Quality
%R	Display all S registers
%V	Display firmware version

A SNMP Remote Configuration Chart

The following chart is provided to help network administrators make remote configuration changes to WBTs in a managed network. These changes are made by physically writing to the managed devices using the logical objects listed in the MIB as reference. This chart lists:

- The lower-most subgroup the logical object belongs to
- The object's name
- What can be written to the object
- Where the UI is modified by the write

> **✓ Note**
>
> For detailed information about each MIB group and its objects see the sections SNMP and DHCP Groups, Physical Devices Groups, and Network and Connections Groups in the network administrator's guide.

You can use the Remote Administrator or an SNMP management tool and the following chart to remotely affect changes to the terminals in your network.

For the Logical Object...	You Can Write...	To Modify...
wbt3I/ODevice Group		
wbt3kbLanguage	Any of the following numbers: **0** = English-US **1** = English-UK **2** = French **3** = German **4** = Spanish **5** = Italian **6** = Swedish **7** = Danish **8** = Norwegian **9** = Dutch **10** = Belgian-French **11** = Finnish **12** = Swiss-French **13** = Swiss-German **14** = Japanese **15** = Canadian-French **16** = Belgian-Dutch **17** = Portuguese **18** = Brazilian-ABNT **19** = Italian-142 **20** = Latin-American **21** = US-International **22** = Canadian-Fr-Multi **23** = Canadian-Eng-Multi **24** = Spanish-Variation	The **Locale** scroll list on the **Input** properties sheet
wbt3CharacterRepeatDelay	Any following number (in milliseconds): **250** **500** **750** **1000**	The **Repeat Delay** slide control on the **Input** properties sheet
wbt3CharacterRepeatRate	Any integer from **0** to **31**	The **Repeat Rate** slide control on the **Input** properties sheet

For the Logical Object...	You Can Write...	To Modify...
wbt3Display Group		
wbt3EnergySaver	Any following number: **0** = none **1** = use a screen saver **2** = use monitor off	The **Screen Saver** and **Turn Off Monitor** radio buttons on the **Display** properties sheet
wbt3ScreenTimeOut	Any integer from **1** to **1440**	The **Wait** scroll list on the **Display** properties sheet
wbt3TouchScreen	Any following number: **0** = no touchscreen **1** = use Com1 **2** = use Com2	The **Port** scroll list in the **MicroTouch Touchscreen Properties** dialog box
wbt3DispCharacteristic Group		
wbt3DispFreq ☑ **Note** This can not be set if DDC is used.	Any following number (in Hz): **60** **75** **85**	The **Desktop Area and Refresh Frequency** scroll list on the **Display** properties sheet
wbt3DispHorizPix	Any following number (in pixels): **640** **800** **1024** **1280**	The **Desktop Area and Refresh Frequency** scroll list on the **Display** properties sheet
wbt3DispVertPix	Any following number (in pixels): **480** **600** **768** **1024**	The **Desktop Area and Refresh Frequency** scroll list on the **Display** properties sheet

For the Logical Object...	You Can Write...	To Modify...
wbt3DispUseDDC	Any following number: **0** = do not use DDC **1** = use DDC	The **Desktop Area and Refresh Frequency** scroll list on the **Display** properties sheet
wbt3DHCPoptionIDs Group		
RemoteServer	Any integer that corresponds to a DHCP option to change the default Option **155** to another option	The **Remote Server** field in the **Change DHCP Option ID's** dialog box
LogonUserName	Any integer that corresponds to a DHCP option to change the default Option **156** to another option	The **Logon User Name** field in the **Change DHCP Option ID's** dialog box
Domain	An integer that corresponds to a DHCP option to change the default Option **157** to another option	The **Domain** field in the **Change DHCP Option ID's** dialog box
Password	An integer that corresponds to a DHCP option to change the default Option **158** to another option	The **Logon Password** field in the **Change DHCP Option ID's** dialog box
CommandLine	An integer that corresponds to a DHCP option to change the default Option **159** to another option	The **Command Line** field in the **Change DHCP Option ID's** dialog box
WorkingDirectory	An integer that corresponds to a DHCP option to change the default Option **160** to another option	The **Working Directory** field in the **Change DHCP Option ID's** dialog box

For the Logical Object...	You Can Write...	To Modify...
FTPFileServer	An integer that corresponds to a DHCP option to change the default Option **161** to another option	The **File Server** field in the **Change DHCP Option ID's** dialog box
FTPRootPath	An integer that corresponds to a DHCP option to change the default Option **162**	The **File Root Path** field in the **Change DHCP Option ID's** dialog box
TrapServerList	An integer that corresponds to a DHCP option to change the default Option **163** to another option	The **Trap Server IP List** field in the **Change DHCP Option ID's** dialog box
SetCommunity	An integer that corresponds to a DHCP option to change the default Option **164** to another option	The **Set Community** field in the **Change DHCP Option ID's** dialog box
RDPStartupApp	An integer that corresponds to a DHCP option to change the default Option **165** to another option	The **Startup Application** field in the **Change DHCP Option ID's** dialog box
EmulationMode	An integer that corresponds to a DHCP option to change the default Option **166** to another option	The **Emulation Mode** field in the **Change DHCP Option ID's** dialog box
TerminalID	An integer that corresponds to a DHCP option to change the default Option **167** to another option	The **Terminal ID** field in the **Change DHCP Option ID's** dialog box

For the Logical Object...	You Can Write...	To Modify...
VirtualPortServer	An integer that corresponds to a DHCP option to change the default Option **168** to another option	The **Server** field in the **Change DHCP Option ID's** dialog box
wbt3CustomFields Group		
wbt3CustomField1	Any alphanumeric character to a text string using a maximum of 60 characters	The **Field 1:** text box in the **SNMP Network Administration** dialog box
wbt3CustomField2	Any alphanumeric character to a text string using a maximum of 60 characters	The **Field 2:** text box in the **SNMP Network Administration** dialog box
wbt3CustomField3	Any alphanumeric character to a text string using a maximum of 60 characters	The **Field 3:** text box in the **SNMP Network Administration** dialog box
wbt3Administration Group		
wbt3SNMPupdate	Any following integer: **0** = not checked **1** = checked	The **SNMP Update Enable** check box on the **Apps** properties sheet
wbt3DHCPupdate	Any following integer: **0** = not checked **1** = checked	The **DHCP Automatic Update Enable** check box on the **Apps** properties sheet
wbt3UpDnLoad Group		
wbt3UpDnLoadNum	Any integer from **1** to **5**	This object does not correspond to any fields in the UI
wbt3AcceptReq	Any following integer: **0** = request not accepted **1** = request accepted	This object does not correspond to any fields in the UI

For the Logical Object...	You Can Write...	To Modify...
wbt3SubmitLoadJob	Any following integer: **0** = job not ready **1** = job ready	This object does not correspond to any fields in the UI
wbt3UpDnLoadIndex	Any integer from **0**..**UpDnLoadNum**	This object does not correspond to any fields in the UI
wbt3UpDnLoadId	Any alphanumeric character to a text string	This object does not correspond to any fields in the UI
wbt3UpDnLoadOp	Any following integer: **0** = request upload **1** = request download	This object does not correspond to any fields in the UI
wbt3UpDnLoadSrcFile	Any alphanumeric character to a text string	This object does not correspond to any fields in the UI
wbt3UpDnLoadDstFile	Any alphanumeric character to a text string	This object does not correspond to any fields in the UI
wbt3UpDnLoadFileType	Any following integer: **0** = binary **1** = ASCII	This object does not correspond to any fields in the UI
wbt3UpDnLoadProtocol	Any following integer: **0** = FTP **1** = TFTP	This object does not correspond to any fields in the UI
wbt3UpDnLoadFServer	Any alphanumeric character to a text string	This object does not correspond to any fields in the UI
wbt3UpDnLoadTimeFlag	**0** = immediate execution	This object does not correspond to any fields in the UI

For the Logical Object...	You Can Write...	To Modify...
wbt3Action Group		
wbt3RebootRequest	Any following integer: **0** = do not reboot **1** = reboot	This object does not correspond to any fields in the UI
wbt3ResetToFactoryDefault	Any following integer: **0 =** not checked **1 =** checked	The **Reset the Terminal to Factory Default Property Settings** check box on the **General** properties sheet
wbt3FTPSettings Group		
wbt3ServerName	Any alphanumeric character to a text string	The **Server Name** text box on the **Upgrade** properties sheet
wbt3Directory	Any alphanumeric character to a text string	The **Server Directory** text box on the **Upgrade** properties sheet
wbt3UserID	Any alphanumeric character to a text string	The **User ID** text box on the **Upgrade** properties sheet
wbt3Password	Any alphanumeric character to a text string	The **Password** text box on the **Upgrade** properties sheet
wbt3SavePassword	Any following integer: **0 =** unchecked **1 =** checked	The **Save Password** check box on the **Upgrade** properties sheet
wbt3InfoLocation	Any alphanumeric character to a text string	The **Status** text box on the **Upgrade** properties sheet
wbt3Security Group		
wbt3SecurityEnable	Any following integer: **0 =** unchecked **1 =** checked	The **Security Enable** check box on the **Security** properties sheet

For the Logical Object...	You Can Write...	To Modify...
wbt3HideConfigTab	Any following integer: **0** = unchecked **1** = checked	The **Hide Configure Tab** check box on the **Security** properties sheet
wbt3FailOverEnable	An integer, select: **0** = unchecked **1** = checked	The **Failover Enable** check box on the **Security** properties sheet
wbt3MultipleConnect	Any following integer: **0** = unchecked **1** = checked	The **Multiple Connect** check box on the **Security** properties sheet
wbt3PingBeforeConnect	Any following integer: **0** = unchecked **1** = checked	The **Ping Before Connect** check box on the **Security** properties sheet
wbt3Verbose	Any following integer: **0** = unchecked **1** = checked	The **Verbose** check box on the **Security** properties sheet
wbt3AutoLoginEnable	Any following integer: **0** = unchecked **1** = checked	The **Autologin Enable** check box on the **Security** properties sheet
wbt3AutoLoginUserName	Any alphanumeric character to a text string	The **User Name** scroll list on the **Security** properties sheet
wbt3SingleButtonConnect	Any following integer: **0** = unchecked **1** = checked	The **Single Button Connect** check box on the **Security** properties sheet
wbt3AutoFailRecovery	Any following integer: **0** = unchecked **1** = checked	The **Auto Fail Recovery** check box on the **Security** properties sheet

For the Logical Object...	You Can Write...	To Modify...
wbt3TrapServers Group		
wbt3TrapServer1	Any alphanumeric character to a text string using a maximum of 60 characters	The **Server 1** text box in the **SNMP Network Administration** dialog box
wbt3TrapServer2	Any alphanumeric character to a text string using a maximum of 60 characters	The **Server 2** text box in the **SNMP Network Administration** dialog box
wbt3TrapServer3	Any alphanumeric character to a text string using a maximum of 60 characters	The **Server 3** text box in the **SNMP Network Administration** dialog box
wbt3TrapServer4	Any alphanumeric character to a text string using a maximum of 60 characters	The **Server 4** text box in the **SNMP Network Administration** dialog box
wbt3Network Group		
wbt3dhcpEnable	Any following integer: **0** = unchecked **1** = checked	The **Obtain an IP Address From a DHCP Server/Specify an IP Address** radio buttons on the **Network** properties sheet
wbt3NetworkAddress	Any alphanumeric character to a text string	The **IP Address** text box on the **Network** properties sheet
wbt3SubnetMask	Any alphanumeric character to a text string using a maximum of 60 characters	The **Subnet Mask** text box on the **Network** properties sheet
wbt3Gateway	Any alphanumeric character to a text string using a maximum of 255 characters	The **Gateway** text box on the **Network** properties sheet

For the Logical Object...	You Can Write...	To Modify...
wbt3dnsEnable	Any following integer: **0** = unchecked **1** = checked	The **Enable DNS** check box in the **Advanced Network Settings** dialog box
wbt3defaultDomain	Any alphanumeric character to a text string using a maximum of 255 characters	The **Default Domain** text box in the **Advanced Network Settings** dialog box
wbt3primaryDNSserverIPaddress	Any alphanumeric character to a text string using a maximum of 255 characters	The **Primary Server IP Address** text box in the **Advanced Network Settings** dialog box
wbt3secondaryDNSserverIPaddres	Any alphanumeric character to a text string using a maximum of 255 characters	The **Secondary Server IP Address** text box in the **Advanced Network Settings** dialog box
wbt3winsEnable	Any alphanumeric character to a text string using a maximum of 255 characters	The **Enable WINS** check box in the **Advanced Network Settings** dialog box
wbt3primaryWINSserverIPaddress	Any alphanumeric character to a text string using a maximum of 255 characters	The **Primary Server IP Address** (**Enable WINS**) text box in the **Advanced Network Settings** dialog box
wbt3secondaryWINSserverIPaddress	Any alphanumeric character to a text string using a maximum of 255 characters	The **Secondary Server IP Address** (**Enable WINS**) text box in the **Advanced Network Settings** dialog box
wbt3NetworkSpeed	Any following integer: **0** = Auto-detect **6** = 100Mbs-full duplex **7** = 100Mbs-half duplex **8** = 10Mbs-full duplex **9** = 10Mbs-half duplex	The **Network Speed** scroll list on the **Network** properties sheet

For the Logical Object...	You Can Write...	To Modify...
	wbt3Apps Group	
wbt3RDPencryption	Any following integer: **0** = checked **1** = unchecked	The **RDP Encryption Enable** check box on the **Apps** properties sheet
wbt3VirtualPortServerIPaddress	Any alphanumeric character to a text string using a maximum of 255 characters	The **Virtual Port Server** text box on the **Apps** properties sheet
wbt3com1Share	Any following integer: **0** = checked **1 =** unchecked	The **Com1 Enable** check box on the **Apps** properties sheet
wbt3com2Share	Any following integer: **0** = checked **1** = unchecked	The **Com2 Enable** check box on the **Apps** properties sheet
wbt3parallelShare	Any following integer: **0** = checked **1** = unchecked	The **LPT1 Enable** check box on the **Apps** properties sheet
ICAStatusDialog	Any following integer: **0** = ctrl **1** = shift	The **Status Dialog** scroll list on the **Hotkeys** properties sheet
ICAStatusDialog2	Any integer from **0**..**9**	The number scroll list to the right of the **Status Dialog** scroll list on the **Hotkeys** properties sheet
ICACloseRemoteApplication	Any following integer: **0** = ctrl **1** = shift	The **Close Session** scroll list on the **Hotkeys** properties sheet
ICACloseRemoteApplication2	Any integer from **0**..**9**	The number scroll list to the right of the **Close Session**scroll list on the **Hotkeys** properties sheet

For the Logical Object...	You Can Write...	To Modify...
ICAtoggleTitleBar	Any following integer: **0** = ctrl **1** = shift	The **Toggle Title Bar** scroll list on the **Hotkeys** properties sheet
ICAtoggleTitleBar2	Any integer from **0**..**9**	The number scroll list to the right of the **Toggle Title Bar** scroll list on the **Hotkeys** properties sheet
ICActrlAltDel	**0** = ctrl	The **CTRL-ALT-DEL** scroll list on the **Hotkeys** properties sheet
ICActrlAltDel2	Any integer from **0**..**9**	The number scroll list to the right of the **CTRL-ALT-DEL** scroll list on the **Hotkeys** properties sheet
ICActrlEsc	**0** = ctrl	The **CTRL-ESC** scroll list on the **Hotkeys** properties sheet
ICActrlEsc2	Any integer from **0**..**9**	The number scroll list to the right of **CTRL-ESC** scroll list on the **Hotkeys** properties sheet
ICAaltEsc	Any following integer: **0** = ctrl **1** = shift	The **ALT-ESC** scroll list on the **Hotkeys** properties sheet
ICAaltEsc2	Any integer from **0**..**9**	The number scroll list to the right of the **ALT-ESC** scroll list on the **Hotkeys** properties sheet
ICAaltTab	Any following integer: **0** = ctrl **1** = shift	The **ALT-TAB** scroll list on the **Hotkeys** properties sheet

For the Logical Object...	You Can Write...	To Modify...
ICAaltTab2	Any integer from **0**..**9**	The number scroll list to the right of the **ALT-TAB** scroll list on the **Hotkeys** properties sheet
ICAaltBackTab	Any following integer: **0** = ctrl **1** = shift	The **ALT-BACKTAB** scroll list on the **Hotkeys** properties sheet
ICAaltBackTab2	Any integer from **0**..**9**	The number scroll list to the right of the **ALT-BACKTAB** scroll list on the **Hotkeys** properties sheet
wbt3Connections Group		
wbt3ConnectionName	Any alphanumeric character to a text string: RDP = 37 characters maximum ICA = 32 characters maximum TEC = 42 characters maximum DialUp = 20 characters maximum	The **Connection Name** list in the **Winterm Connection Manager**
wbt3ConnectionType	Any following integer: **0** = RDP **1** = ICA **2** = TEC **3** = DialUp	The **Type** list in the **Winterm Connection Manager**
wbt3ConnectionEntryStatus	Any following integer: **1** = active **2** = not in service **3** = not ready **4** = create and go **5** = create and wait **6** = destroy	The **Connection Name** list in the **Winterm Connection Manager**

For the Logical Object...	You Can Write...	To Modify...
wbt3RDPConnections Group		
wbt3RDPConnServer	Any alphanumeric character to a text string using a maximum of 32 characters	The **Server** text box in the **WTS Connection Wizard** (number 1)
wbt3RDPConnLowSpeed	Any following integer: **0** = not checked **1** = checked	The **Low Speed Connection** check box in **WTS Connection Wizard** (number 1)
wbt3RDPConnAutoLogon	Any following integer: **0** = not checked **1** = checked	The **Automatic Logon** check box in **WTS Connection Wizard** (number 2)
wbt3RDPConnUserName	Any alphanumeric character to a text string using a maximum of 32 characters	The **Username** text box in **WTS Connection Wizard** (number 2)
wbt3RDPConnDomain	Any alphanumeric character to a text string	The **Domain** text box in **WTS Connection Wizard** (number 2)
wbt3RDPConnStartApplication	Any following integer: **0** = desktop **1** = file name	The **Desktop/Application File Name** radio buttons in **WTS Connection Wizard** (number 3)
wbt3RDPConnFilename	Any alphanumeric character to a text string using a maximum of 32 characters	The **Application File Name** text box in **WTS Connection Wizard** (number 3)
wbt3RDPConnWorkingDir	Any alphanumeric character to a text string using a maximum of 32 characters	The **Working Directory** text box in **WTS Connection Wizard** (number 3)

For the Logical Object...	You Can Write...	To Modify...
wbt3ICAConnCommType	The integer **0** = ctrl	The **Network Connection/Dial-In Connection** radio buttons in the **Specify Connection Type** dialog box
wbt3ICAConnServer	Any alphanumeric character to a text string	The **Citrix Server/ Published Application** text box in the **Select a Citrix Server or Published Application** dialog box
wbt3ICAConnCommandLine	Any alphanumeric character to a text string	The **Command Line** text box in the **Specify an Application** dialog box
wbt3ICAConnWorkingDir	Any alphanumeric character to a text string	The **Working Directory** text box in the **Specify an Application** dialog box
wbt3ICAConnUsername	Any alphanumeric character to a text string	The **Username** text box in the **Specify Logon Information** dialog box
wbt3ICAConnDomain	Any alphanumeric character to a text string	The **Domain** text box in the **Specify Logon Information** dialog box
wbt3ICAConnColors	Any following integer: **0** = 16 **1** = 256	The **Windows Colors** radio buttons in the **Select Window Options** dialog box
wbt3ICAConnDataCompress	Any following integer: **0** = not checked **1** = checked	The **Compress Data Stream** check box in the **Compression, Cache, Encryption and Sound** dialog box

For the Logical Object...	You Can Write...	To Modify...
wbt3ICAConnSoundQuality	Any following integer: **0** = (none) **1** = low quality **2** = medium quality **3** = high quality	The **Sound Quality** scroll list in the **Compression, Cache, Encryption and Sound** dialog box
wbt3TermConnCommType	The integer **0** = network	The **TCP/IP/Modem/ Serial** radio buttons in the **TE Client Connection Wizard - Host Information** dialog box
wbt3TermConnServer	Any alphanumeric character to a text string using a maximum of 32 characters	The **Connection Name** text box in the **TE Client Connection Wizard - Connection Information** dialog box
wbt3TermConnEmuType	Any following integer: **0** = VT52 **1** = VT100 **2** = VT220 **3** = VT400-7-Bit **4** = VT400-8-Bit **5** = ANSI-BBS **6** = SCO Console **7** = IBM3270 **8** = IBM3151 **9** = IBM5250 **10** = WY50 **11** = WY50+ **12** = TV1910 **13** = TV1920 **14** = TV1925 **15** = ADDS-A2 **16** = HZ1500 **17** = WY60	The **Emulation** scroll list in the **TE Client Connection Wizard - Connection Information** dialog box

For the Logical Object...	You Can Write...	To Modify...
wbt3TermConnVTEmuModel	**0** = VT100 **1** = VT101 **2** = VT102 **3** = VT125 **4** = VT220 **5** = VT240 **6** = VT320 **7** = VT340 **8** = VT420 **9** = VT131 **10** = VT132 **256** = not applicable	The **VT Terminal ID** scroll list in the **TE Client Connection Wizard - Connection Information** dialog box
wbt3TermConnIBM3270EmuModel	**0** = IBM3278-2 **1** = IBM3278-3 **2** = IBM3278-4 **3** = IBM3278-5 **4** = IBM3278-2-E **5** = IBM3278-3-E **6** = IBM3278-4-E **7** = IBM3278-5-E **8** = IBM3279-2 **9** = IBM3279-3 **10** = IBM3279-4 **11** = IBM3279-5 **12** = IBM3287-1 **256** = not applicable	The **IBM 3270 Model** scroll list in the **TE Client Connection Wizard - Connection Information** dialog box
wbt3TermConnIBM5250EmuModel	**0** = IBM5291-1 **1** = IBM5292-2 **2** = IBM5251-11 **3** = IBM3179-2 **4** = IBM3196-4 **5** = IBM3180-2 **6** = IBM3477-FC **7** = IBM3477-FG **8** = IBM3486-BA **9** = IBM3487-BA **10** = IBM3487-HC **11** = not applicable	The **IBM 5250 Model** scroll list in the **TE Client Connection Wizard - Client Information** dialog box
wbt3TermConnPortNumber	Any integer from **1** to **65535**	The **Port Number** text box in the **TCP/IP Telnet Configuration** dialog box

For the Logical Object...	You Can Write...	To Modify...
wbt3TermConnTelnetName	Any alphanumeric character to a text string	The **Connection Name** text box in the **Connection Information** dialog box
wbt3TermConnPrinterPort	The integer **0** = LPT1	The **Printer Port** scroll list in the **TE Client Connection Wizard - Printer Port Settings** dialog box
wbt3TermConnFormFeed	Any following integer: **0** = not checked **1** = checked	The **FormFeed Terminator** check box in the **TE Client Connection Wizard - Printer Port Settings** dialog box
wbt3TermConnAutoLineFeed	Any following integer: **0** = not checked **1** = checked	The **Auto Line Feed** check box in the **TE Client Connection Wizard - Printer Port Settings** dialog box
wbt3TermConnScript	Any alphanumeric character to a text string	The **Script** text box in the **TE Client Connection Wizard - Automate Login Process** dialog box
wbt3Users Group		
wbt3UsersStatus	Any following integer: **1** = active **2** = not in service **3** = not ready **4** = create and go **5** = create and wait **6** = destroy	This object does not correspond to any fields in the UI.
wbt3userName	Any alphanumeric character to a text string using a maximum of 20 characters	The **User Name** text box in the **Add User Account** and **Modify User Account** dialog boxes

For the Logical Object...	You Can Write...	To Modify...
wbt3password	Any alphanumeric character to a text string	The **Password** text box in the **Add User Account** and **Modify User Account** dialog boxes
wbt3privilege	Any following integer: **0** = admin **1** = user **2** = guest	The **Administrator/User/ Guest** radio buttons in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection1	Any alphanumeric character to a text string using a maximum of 20 characters	The first connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection2	Any alphanumeric character to a text string using a maximum of 20 characters	The second connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection3	Any alphanumeric character to a text string using a maximum of 20 characters	The third connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection4	Any alphanumeric character to a text string using a maximum of 20 characters	The fourth connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection5	Any alphanumeric character to a text string using a maximum of 20 characters	The fifth connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes

For the Logical Object...	You Can Write...	To Modify...
wbt3Connection6	Any alphanumeric character to a text string using a maximum of 20 characters	The sixth connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection7	Any alphanumeric character to a text string using a maximum of 20 characters	The seventh connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3Connection8	Any alphanumeric character to a text string using a maximum of 20 characters	The eighth connection listed in the **Connection Name** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart1	Any following integer: **0** = not checked **1** = checked	The first entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart2	Any following integer: **0** = not checked **1** = checked	The second entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart3	Any following integer: **0** = not checked **1** = checked	The third entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart4	Any following integer: **0** = not checked **1** = checked	The fourth entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes

For the Logical Object...	You Can Write...	To Modify...
wbt3AutoStart5	Any following integer: **0** = not checked **1** = checked	The fifth entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart6	Any following integer: **0** = not checked **1** = checked	The sixth entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart7	Any following integer: **0** = not checked **1** = checked	The seventh entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3AutoStart8	Any following integer: **0** = not checked **1** = checked	The eighth entry listed in the **AutoStart** list in the **Add User Account** and **Modify User Account** dialog boxes
wbt3UserPasswordChange	Any following integer: **0** = not checked **1** = checked	The **Enable Password Change** check box in the **Add User Account** and **Modify User Account** dialog box.

✔ **Note**

This chart may not list all of the read-write objects in the MIB.

B NFuse Server Configuration Requirements

Introduction

Firmware version 3.5 introduces two new methods for accessing ICA published applications:

*   Program neighborhood light (PNLite) (see "ICA Client Settings")
*   Browser based access, in which an NFuse server provides ICA links within a Web page to allow ICA sessions to be launched from within a browser window (see "Internet Explorer Connections").

Both facilities rely on the Citrix NFuse capability set. Before the terminal can provide either of these services, NFuse must be installed and licensed on the Citrix server.

PNLite Access

When PNLite is initially configured on the server, the installer must designate a port to be used for telling clients about the published applications. Each client must have this port configured using the PNLite tab of the ICA global settings configuration (see "ICA Client Settings"). Once set up, all applications published through this mechanism on the designated server will appear as automatically configured connections in the **Connection Manager** window. The list of published applications/automatic connections is refreshed every time the terminal is rebooted.

Browser-Based Access

Publication of applications using a web page may be set up using the Citrix NFuse Web site wizard. There are two limitations in using this facility with the local browser installed on a T10x0 series model terminal.

1. The Citrix wizard will generate a page named default.htm that will cause a failure in the version of Internet Explorer included with Winterm software version 3.5. The generated page attempts to display a pop-up browser window. The Internet Explorer version on the terminal does not support this capability and the browser simply displays a blank page with a small red X in the upper left corner. There are several ways to avoid this problem:

- Instruct users to reference the explicit URL http://<servername>/login.htm
- Remove the page named default.htm and rename the page named login.htm to default.htm
- Using the Internet Information Service (IIS) management facility, insert the page named login.htm into the list of default pages and then promote it to the first position in the list.

The individual site requirements will dictate which is the best choice.

2. An additional configuration requirement results from the fact that the Internet Explorer version on the terminal does not support Microsoft's ActiveX. If the server is configured to launch applications embedded within the browser window, the terminal's attempt to access these applications will fail. The Web site must be configured to launch applications in a separate window. This will result in running the ICA client code resident on the terminal to create the window for accessing the published application.

Glossary

The following glossary is a list of commonly used terms in this guide.

Term	Definition
10Base-T	One of several adaptations of the Ethernet (IEEE 802.3) standard for Local Area Networks (LANs). The 10Base-T standard (also called Twisted Pair Ethernet) uses a twisted-pair cable with a maximum length of 100 meters. The cable is thinner and more flexible than the coaxial cable used for the 10Base-2 or 10Base-5 standards.
100Base-T	A networking standard that supports data transfer rates up to 100 Mbps (100 megabits per second). 100Base-T is based on the older Ethernet standard. Because it is 10 times faster than Ethernet, it is often referred to as Fast Ethernet. Officially, the 100Base-T standard is IEEE 802.3u. Like Ethernet, 100Base-T is based on the CSMA/CD LAN access method.
CHAP	Challenge-Handshake Authentication Protocol. An authentication scheme used by PPP servers to validate the identity of the originator of the connection upon connection or any time later.
CRT	Cathode-Ray Tube. A large vacuum tube with a viewing face in which an electron beam is focused and controlled to form characters and other images. A CRT is the display you see on the monitor you use with your terminal.
CTS	Clear to Send. Control signal sent from the DCE. It indicates that the DTE may send data. This signal is used in serial connections.
DCE	Data Communications Equipment. Devices that provide the functions required to establish, maintain, and terminate a data transmission connection, e.g., a modem.

DHCP	The Dynamic Host Configuration Protocol (DHCP) provides configuration parameters to Internet hosts. DHCP consists of two components: a protocol for delivering host-specific configuration parameters from a DHCP server to a host and a mechanism for allocation of network addresses to hosts.
	DHCP is built on a client-server model, where designated DHCP hosts allocate network addresses and deliver configuration parameters to dynamically configured hosts. The term "server" refers to a host providing initialization parameters through DHCP, and the term "client" refers to a host requesting initialization parameters from a DHCP server
DNS	Domain Name Service. A general-purpose distributed, replicated, data query service chiefly used on the Internet for translating host names into Internet addresses.
Download	To transfer data from a processing unit to an attached device. For example, from a host to the terminal.
DSR	Data Set Ready. A hardware signal sent by a communications device to indicate readiness to send and receive data. This signal is used in serial connections.
DTE	Data Terminal Equipment. A device that acts as the source and/or destination of data and which controls the communication channel. DTE includes terminals, computers, protocol converters, and multiplexors. DTE is usually connected via an RS-232 serial line to Data Communication Equipment (DCE).
DTR	Data Terminal Ready. A hardware signal sent by a terminal to indicate readiness to send and receive data. This signal is used in serial connections.
Ethernet	A baseband local area network specification developed jointly by Digital Equipment Corp., Xerox, and Intel to interconnect computer equipment using coaxial cable and transceivers. An Ethernet LAN provides millions of bits per second of capacity for high-speed terminal-to-computer communication or computer-to-computer file transfer.
FCC	Federal Communications Commission. The Government body that regulates all telecommunications originating in the U.S., including transmission over telephone lines.
Firmware	A computer program or software stored permanently in a PROM or ROM or semi-permanently in an EPROM.

Flow control	The procedure for regulating the flow of data between two devices, flow control prevents the loss of data when one device's receiving buffer has reached its capacity.
FTP	File Transfer Protocol. FTP is a program for transferring files in TCP/IP environments such as the intranet in which a user, acting as a client, downloads files from a remote server. FTP is a core component in TCP/IP system administration and is implemented at the Applications layer with respect to the OSI protocol model. Its operation is based on the Telnet program and TCP.
GUI	Graphical User Interface (pronounced "gooey"). The use of pictures rather than just words to represent the input and output of a program. A program with a GUI runs under some windowing system (e.g. Microsoft Windows®). The program displays certain icons, buttons, and dialog boxes in its windows on the screen. The user mainly controls these objects by moving a pointer on the screen (typically controlled by a mouse) and selecting certain objects by pressing buttons on the mouse while the pointer is pointing at them.
Hz	Hertz. A unit of frequency equal to 1 cycle per second.
ICA	Independent Computing Architecture. A three-part server-based computing technology that separates an application's logic from its user interface and allows 100% application execution on the server. ICA was developed by Citrix Systems, Inc.
Integrated CRT terminal	A terminal with a monitor and connections on the back for a keyboard and mouse.
Interface	A shared boundary defined by common physical interconnection characteristics, signal characteristics, and meaning of interchanged signals.
Internet	The Internet is a global web of interconnected computers and computer networks that are interconnected under a common set of network protocols that allows them to function as a single large network (see TCP/IP).

IP address	Internet Protocol Address. The 32-bit, 4-byte address assigned to machines with TCP/IP. Every machine that is on the Internet has a unique IP address. This facilitates interconnectivity among a variety of independent host systems.
	An IP address is usually represented in dotted decimal notation (called a dotted quad) consisting of 4 parts separated by dots, e.g.:
	165.113.245.2
	Most machines also have one or more *Domain Names* (see DNS) that are easier for people to remember.
Intranet	A network of WBTs within a company or organization.
ISDN	Integrated Services Digital Network. Evolving switched network standard that provides end-to-end digital voice and data communication services.
kb or kilobit	1,024 bits. Commonly referred to as 1 thousand bits.
kB or kilobyte	1,024 bytes. Commonly referred to as 1 thousand bytes.
kbps or kb/s	Kilobits per second. An abbreviation meaning thousands of bits per second.
Load Balancing Services	A management add-on to Citrix WinFrame and MetaFrame servers that allows administrators to group multiple WinFrame and/or MetaFrame servers into scalable "server farms" to deliver the best application performance and server resource utilization.
Mb or megabit	1,048,576 bits. Commonly referred to as 1 million bits.
MB	Megabytes
Mbps or Mb/s	Megabits per second.
MetaFrame	The world's first Server-based Computing software for Microsoft Windows NT 4.0 Server, Terminal Server Edition multi-user software.
MIB	Management Information Base. A database of managed objects accessed by network management protocols.

Modem	(Mo)dulator/(dem)odulator. Data communication equipment (DCE) devices that provide connections for computers into the public switched telephone network (PSTN). They convert (modulate) the digital signals of computers into analog signals that can be transmitted over telephone lines. A modem at the other end of the link then demodulates the signals back to digital bits.
Modular terminal	Desktop client that works with existing standard monitors.
Network	An interconnected group of nodes; a series of points, nodes, or stations connected by communications channels; the assembly of equipment through which connections are made between data stations.
Null modem	A cable, typically an RS-232 cable, for connecting serial ports on two computers directly, rather than via modems. Since, according to the specification, both computers should transmit on pin three of their RS-232 connectors and receive on pin two, a null modem cable needs to connect one computer's pin two to the other's pin three and vice versa. It also needs to have male connectors at both ends (again, according to the specification).
OSD	On Screen Display. A menu that displays on your monitor.
Packet	A group of bits (including data and call control signals) transmitted as an identifiable unit on a packet-switched network (PSN).
PAP	Password Authentication Protocol. An authentication scheme used by PPP servers to validate the identity of the originator of the connection. PAP applies a two-way handshaking procedure. After the link is established the originator sends an id-password pair to the server. If authentication succeeds the server sends back an acknowledgment; otherwise it either terminates the connection or gives the originator another chance.
Parallel port	An input/output port that allows the entire bit pattern for a single character to be sent at one time, usually used to connect a printer to a computer.
Parity check	The addition of non-information bits (specifically, parity bits) to make up a transmission block (a number of bits transmitted as unit) that ensures the total number of ones is always either even (even parity) or odd (odd parity). The parity check is used to detect transmission errors.

PCMCIA	Personal Computer Miniature Connector Interface Adapter. Hardware and software standards for credit-card-sized integrated circuit cards.
Ping	Packet InterNet Groper. A protocol used in the Transmission Control Protocol (TCP) environment to test whether a node or remote device is communicating on a local area network (LAN) or wide area network (WAN). The protocol provides for transporting an echo response from a host system, a client, or a gateway. It is a useful tool for locating problems on the network related to failed connections and software problems. One datagram is sent every second over the network and any response is displayed.
PPP	Point-to-Point Protocol. A serial communication protocol that operates over dialup or leased (dedicated) lines to provide connections into IP networks. It sets up and monitors router sessions and frames the data transmitted over the line.
Protocol	A set of formal rules describing how to transmit data, especially across a network. Low-level protocols define the electrical and physical standards to be observed, bit- and byte-ordering, and the transmission and error detection and correction of the bit stream. High level protocols deal with the data formatting, including the syntax of messages, the terminal to computer dialogue, character sets, sequencing of messages, etc.
RAM	Random-Access Memory. A mass store that provides fast access to any storage location by means of vertical and horizontal coordinates. Information is written in or read out using the same procedure. The memory cycle time is the same for any location addressed because there is no waiting or sorting time required, as there is when data items are stored sequentially.
RAS	Remote Access Services. A service provided by Windows NT that allows most of the services which would be available on a network to be accessed over a modem link. The service includes support for dialup and logon, and then presents the same network interface as the normal network drivers (albeit slightly slower).
RDP	Remote Desktop Protocol. A presentation service protocol that governs input and output between a WBT and WTS (Windows Terminal Server). It is based on the T.share protocol.

RS-232 cable	A cable for serial interfaces between the terminal and communications devices, such as a modem. The cable connects to the 9-pin serial port at the back of the terminal. Maximum cable length is 50 feet; maximum signaling rate is 20 Kbits/sec.
RTS/CTS flow control	Request to Send/Clear to Send flow control. Enables flow control on the local serial line. RTS is the output of the terminal; CTS is the input to the terminal.
Serial port	A connector on a computer to which you can attach a serial line connected to peripherals that communicate using a serial (bit-stream) protocol. The most common type of serial port is a 25-pin D-type connector carrying RS-232 signals. Smaller connectors (e.g. 9-pin D-type) carrying a subset of RS-232 are often used on personal computers.
	☑ **Note**
	Not all terminals have a serial port.
Server	A computer, or a software package, that provides a specific kind of service (such as access to workstations, printers, and other parts of the network) to *client* software running on other computers. The term can refer to a particular piece of software, such as a *WWW* server, or to the machine on which the software is running. A single server machine could have several different server software packages running on it, thus providing many different services to *clients* on the *network*.
SNMP	Simple Network Management Protocol. The industry standard protocol for managing TCP/IP networks. This protocol queries agents in managed devices and passes information to the management console.
Start bit	In asynchronous transmission, the first bit of any given character used to alert the receiving system to recognize the related incoming data.
Stop bit	In asynchronous transmission, the last bit of any given character, used to alert the receiving system that transmission of the character is complete.

TCP/IP	Transmission Control Protocol/Internet Protocol. A standard set of protocols that govern the basic workings of the Internet. It was developed by DARPA and implemented in 1982. TCP/IP encompasses both network layer and transport layer protocols (in the OSI model). While TCP and IP specify two protocols at specific protocol layers, TCP/IP is often used to refer to the entire DOD protocol suite based upon these, including Telnet, FTP, UDP and RDP.
Telnet	Telnet is the login and terminal emulation program for Transmission Control Protocol/Internet Protocol (TCP/IP) networks such as the Internet. Its primary function is to allow users to log into remote host systems.
Terminal emulation	Programs that allow a WBT to act like a particular brand or type of terminal. The WBT thus appears as a terminal to the host computer and accepts the same escape sequences for functions such as cursor positioning and clearing the screen.
Thin-client	A low-cost computing device that works in a server-centric computing model. Thin clients typically do not require state-of-the-art, powerful processors and large amounts of RAM and ROM because they access applications from a central server or network. Thin clients can operate in a Server-based Computing environment.
Timeout	A time interval within which certain operations must occur; for example, the time allotment for the terminal to connect to a login host. After the timeout, the process can either be repeated or discontinued.
Total Cost of Ownership (TCO)	A model that helps IT professionals understand and manage the budgeted (direct) and unbudgeted (indirect) costs incurred for acquiring, maintaining and using an application or a computing system. TCO normally includes training, upgrades, and administration as well as the purchase price. Lowering TCO through single-point control is a key benefit of Server-based Computing.
Touch screen	A type of display screen that has a touch-sensitive transparent panel that can sense when someone is touching it, and is able to furnish a computer with precise information as to exactly where on the screen the touch occurred. Touch screens are used with software that uses the information provided by the screen touch to respond to user requests.

USB	Universal Serial Bus. An external peripheral interface standard for communication between computer and external peripherals over an inexpensive cable using biserial transmission. USB works at 12 Mbps with specific consideration for low-cost peripherals. USB cables can be up to 5 meters long.
Virtual Port	Incoming Telnet and rlogin connections are not associated with a physical port. Instead, they are associated with a virtual port, port 0, which serves for the duration of the connection. Each virtual port is created with a default set of characteristics. The Define Port commands can be used to customize a virtual port during the Telnet/Rlogin session; however, these customizations can not be saved. The port reverts to the default set of characteristics when the session is closed.
WAN	Wide Area Network. A data-communications system covering a large geographic area, usually digital circuits having moderate to high data rates (e.g., 56 to 64 kbps up to 1.5 to 2 Mbps).
WBT	Windows-based Terminal. A thin-client device that connects to a Citrix WinFrame or MetaFrame server to provide application access. The key differentiation of a WBT from other type devices is that all the application execution occurs on the server. There is no downloading or local processing of applications at the client.
WinFrame	A multi-user Windows application server, based on Windows NT, developed under license from Microsoft. This application was developed by Citrix Systems, Inc.
WINS	Windows Internet Naming Service. WINS allows machines to dynamically register their name-to-address mappings. WINS is also a flat name space without the concept of hierarchy and requires each WINS server to maintain a complete database of entries through replication.
Winterm	Trademarked logo for Windows-based Terminals manufactured by Wyse Technology Inc.
WTS	Windows Terminal Server. A server application that transmits Windows user interface data via a network to a WBT.
X-ON/X-OFF	Transmitter On/Transmitter Off. Control characters used for flow control, instructing serial devices to start transmission (X-ON) and stop transmission (X-OFF).

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